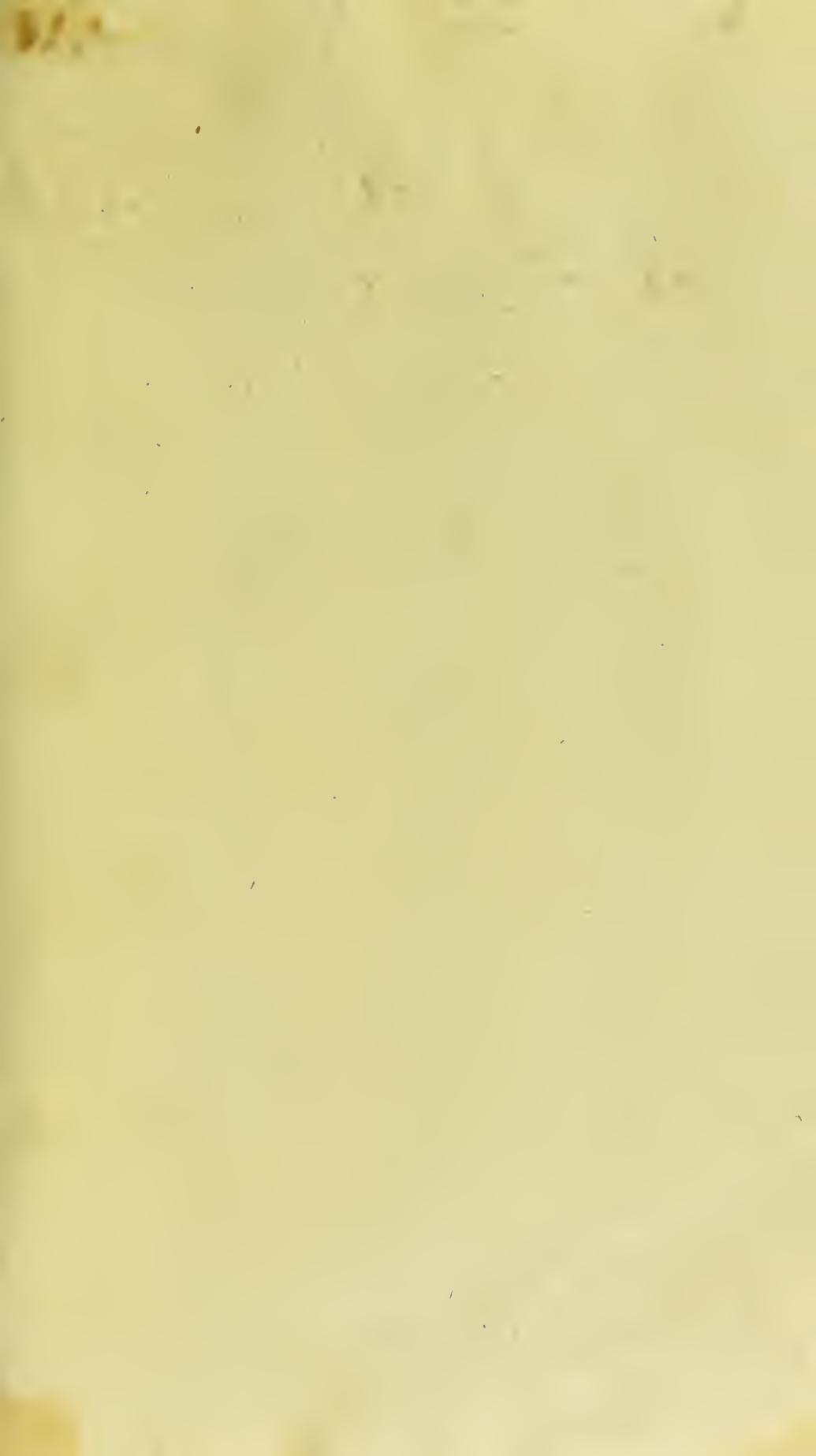


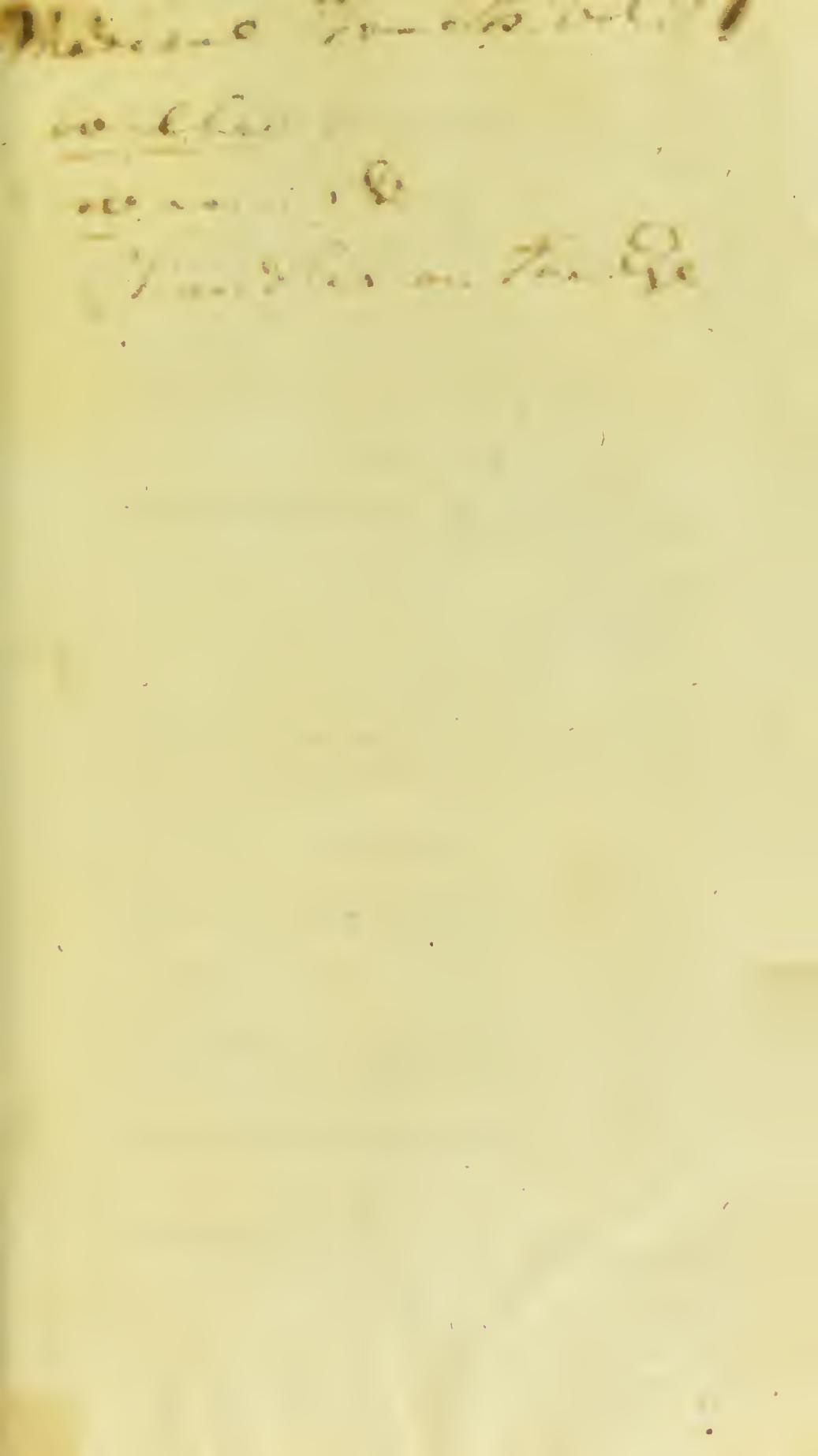


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W. C. W. (1888)

Nosologia Methodica Oculorum :
OR, A
T R E A T I S E
ON THE
DISEASES OF THE EYES,
Selected and translated from the Latin of
FRANCIS BOSSIER DE SAUVAGES ;

WHEREIN
THE WHOLE ARE METHODICALLY ARRANGED :

TO WHICH ARE ALSO ADDED,
THE DESCRIPTIONS AND MODES OF CURE, AS RECITED
BY THOSE AUTHORS WHO HAVE WRITTEN PROFES-
SEDLY ON THE VARIOUS SUBJECTS HEREIN ENUMERATED.

WITH ANNOTATIONS.

By GEORGE WALLIS, M. D.
No. 53. BROAD-STREET, SOHO.

Rationalem, quidem puto Medicinam esse debere; instrui vero ab evidentibus Causis; obscuris omnibus non a Cogitatione Artificis, sed ab ipsâ Arte rejectis.

CELSUS.

LONDON:
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TO THE RIGHT HONORABLE

L O R D H A W K E

B A R O N T O W T O N.

IN Dedications, my Lord, flattery has ever been considered as the most palatable ingredient ; and in one annexed to a work of this nature, which I now presume to present to your Lordship, it would be matter of offence to many that it is not seasoned with so pleasing a stimulant : some will probably be astonished that I should omit paying the common

tribute to so dignified a character, whose recent conduct in public business has furnished me with so extensive a field for eulogy. But, my Lord, I am truly sensible that silent reflection on well-intended actions is replete with such satisfaction, that it ever amply compensates, in your Lordship's bosom, the trouble and fatigue they may have occasioned.

Greatly as your Lordship may have merited the voice of praise, I am actuated by more selfish motives ---the impulses of a grateful heart.--- It is not the duty, but the pride, of gratitude, which hath made me snatch the earliest opportunity of confessing the innumerable obligations I lie under to your Lordship.---To picture to the world my feelings, at this moment,

ment, would be doing them injustice
---to enumerate the favours I have
received would, I know, be irksome
to the delicacy of your sentiments.---
Still, my Lord, I should think my-
self unworthy of the smiles of For-
tune, if I should neglect to declare,
that every species of felicity I can
enjoy, every good which can accrue
from the exertions of my weak abi-
lities, must be attributed to the be-
nevolence of your heart ; for when
my mind was harassed with the most
painful sensations, when calamity
was my associate, your Lordship's
generosity and condescension made
sorrow an exile, inspired me with a
degree of fortitude, by which I was
enabled to conquer Misfortune, and
give to the world the following pub-
lication ; from whence, if any bene-

fit should be derived to mankind,
your Lordship's goodness must be
considered as the primary source.

I have the Honor to be,

with the greatest Deference,

My Lord,

Your Lordship's most obedient,

and devoted Servant,

THE AUTHOR.

P R E F A C E.

THE Eye, that invaluable organ, productive of such infinite felicity to the human race, has employed the pens of various authors, still few of them have given a complete history of its diseases, specifying their varieties, or enumerating their species, in such a manner as to render the knowledge of them sufficiently copious ; or to lead us to those various modes of cure their particular deviations from each other render absolutely necessary ;—for we find that, though some diseases may be of the same genera, yet their varieties require methods of medical application different, nay, even diametrically opposite to each other ; how much more so then the different species ?—In reading over the works of the accurate and laborious SAUVAGES, it appeared that he seemed to have made a more perfect collection of the subject than any of his predecessors ; and though some have written since his time, their works have been, in general, too confined, especially those of more modern date, presented to

the world in an English dress, so that a selection and translation of what Sauvages had scattered under different heads in his Nosology, was thought would not be a work totally useless ;—indeed to a particular class of practitioners, it was considered as a performance which might be extremely advantageous.— To the learned adepts it promises little, as they are capable of acquiring knowledge from the fountain from whence this is drawn.—To the ignorant self-created doctors and surgeons, who start into practice from the most servile offices of life, arrogantly assume to themselves the right of prescribing, and impudently attempt to impose on the credulity of those who become martyrs to their preposterous presumption, it can be of no service ; for the road to true knowledge they are ever incapable of pursuing, be it rendered ever so plain ; they content themselves with the art of deception, and study to steal to the purses of their patients by pomp and vain boasting.—To the industrious and conscientious medical investigator, whose education has not qualified him for consulting any works, except those written in his own language,

guage, yet who thirsts for every necessary information requisite for the prosecution of one of the most noble arts, it may be of singular utility—For the Editor has endeavoured to give a view of those diseases which happen to the Eye distinctly, forming a complete work on that subject; and though he has adhered in his translation, as close to the idiomatical nature of the two languages as they would permit, he has also taken the liberty of attempting to anglicise, if he may be allowed the expression, the terms by which the various complaints are known in medical writers.

The use he proposes by adapting the terms of the Greek and Latin authors, given to diseases, to the English ear, is to render them more familiar to the English reader, and more easily retained in the memory—Indeed it has always been considered as a task replete with much difficulty; the English language itself affords us not sufficient power to comprise so much in one term as either of the other; for, in speaking of diseases, were we to be confined to express ourselves totally consistent with the phraseolo-

gy of this country, we should be under the necessity of giving descriptions, rather than reciting the names by which they are distinguished :—that this has long been considered to be the case it is obvious, from various authors being under the necessity of introducing Greek and other terms, and matriculating them with our own language by changing their terminations chiefly, or otherwise altering them for the sake of euphony, such as rendered them most agreeable to the ear, and gave them the sound of our vernacular language, viz. *Epilepsia*, *Epilepsy*—*Hysteria*, *Hysterics*—*Priapismus*, *Priapism*—*Hæmorrhagia*, *Hemorrhage*—*Apoplexia*, *Apoplexy*—*Rheumatismus*, *Rheumatism*—*Colic*, *Colic*, &c. &c. &c.—This method however has not been confined to our art alone, but is generally diffused through the whole of our language ; and we find these sounds, familiarized to the ear, convey the precise meaning, as well as by any other letters conjoined, forming words purely English, that human understanding could invent.

As this liberty has been taken already, the Editor has only made a larger stride in the medical hemisphere, though not without pilots, considered amongst the Hippocratic sect, as the most sagacious.— Notwithstanding which it may, perhaps, be thought that terms difficult to be retained in their native form by readers, not conversant with the language, will scarcely be rendered more easily retentive by altering their terminations, and modifying them to the English idiom ; —— at the first view it may appear so, still if we consider the variety of words so deduced ; so commonly made use of, and so perfectly understood by those who know not an iota of that language from whence they were derived, we shall find that perhaps the very reason why such vast numbers lie buried, is because they want merely an English tone, which depends on the termination ; and wanting that, they are neglected, and not brought into common use, which would and can only render words readily intelligible, be they of what description they will.

Nor has the Editor alone followed those examples which have been set of altering the terminis

terminations, and otherwise modifying foreign words, he has also imitated the ancient and some of the modern authors in compounding terms, that the diseases, from their very names, may be as well understood by the English reader, as by the more learned—and these he has contrived so as to express either the parts affected, the causes from whence they originated, or the effects produced, each of which kept closest to, or gave the most clear idea of the word originally used. And as the medical profession is not, as formerly, confined to men of erudition, nay, indeed, some of our very teachers in its different branches, affect to laugh at, and despise, classical knowledge; works of this nature, reduced to a common standard, in respect to language, become more necessary, that the terms which distinguish those maladies such practitioners are called to relieve, may by them at least be understood; besides it would even assist the younger branches in discovering the nature of the disease; very often be expressive of the cause, and point out the virtues necessary in the applications, and indeed become a medicinal epitome,

epitome, generally useful, and always satisfactory.

On the other hand, some indeed pay so blind and so slavish an obedience to the antients, that they labor not only to preserve those terms which are trifling, and extremely expressive, but also apply them to the diseases to which they were total strangers ;—to these probably this attempt may be offensive ; so would the most indefatigable application in the search of truth, unclogged with the lumber of antiquity—like a large Gothic pile, which strikes the eye of the antiquarian with grandeur from the useless mass of matter with which it is loaded ; so the ears of those men are delighted with the sounds of rumbling consonants inadequate to the idea familiar words would more plainly convey. And this must be the case, if we consider the errors into which the antients were naturally led by their various hypotheses built not upon experiment, but ingenious conceit.—

The improvements of later times have supplied us with information unknown to them——have given us to understand the causes

causes of many diseases very different from their conceptions, and led us to modes of cure, which prove their doctrines fallacious—Why then in these cases retain their terms? They serve only to perplex and bewilder the young student, and occasion him to waste his time in useless enquiries.—This should, by all means, be avoided, and we should rather incessantly labor to constitute a path to medical science pleasant, easy, and the most certain—all of which are necessary in pursuits already wrapt up, with all our aids, in too much obscurity.

The Editor's attention in this work, has not been solely directed to terms; but he has not thought it unworthy of his care to form a new arrangement, by which means he might shew the seat of the disease; a matter essentially necessary in the art of healing—In doing this he has been under the necessity of inserting in the annexed table, the same disease repeatedly, according to the particular parts in which it was known to form itself; not at the same time neglecting the class and order as observed by Sauvages,

vages, that at one view the seat and nature of the disorder might be discovered, viz.

Ophthalmia cancrofa—has three insertions in his table, by which means, we find, it has its origin in the eye-lid, the angle of the eye, and the ball also.—Its class—pains; its order—of the head; &c.

This plan was adopted to lead the practitioner, on viewing the Eye, to declare the disease, or readily to refer at once to its description and cure;—for though by the term Ophthalmy is generally understood inflammations of the Eye, and those external, we find that is not always the case, for there are Ophthalmies which have no redness—and Ophthalmies affecting different parts of the Eyes—which are attended with more or less acute pains of the head—and he has more than once known a disease deep-seated in the Eye mistaken for a cephalalgia, and as such treated.

The great use of minutely searching for, and explaining in the most familiar manner, the seat of the disease, is too obvious to need any thing further being said on this subject;

not-

notwithstanding it has been urged, that attempts of this kind would carry along with them unpleasing consequences, inasmuch as they tended to make the mysteries of this art easy and intelligible to common capacities ; and hence every old woman would become a physician. It scarce can be supposed an opinion in itself so illiberal will have any weight ; with those, however, who are blessed with a small share of philanthropy, it surely cannot ;—for it is well known the lives of thousands are every day committed to the care of the unlettered practitioners of physick, who, for want of proper means of acquiring a minute knowledge of the different diseases which come under their inspection, blunder on in error, sometimes become the executioners, and very often the torturers of those unhappy wretches, who place confidence in them, plunging their patients if not into the arms of death, into diseases, under which they languish and drag on a painful and miserable existence.

If then any means can be found by which an extensive knowledge on any medical subject

ject can be most universally conveyed, and diffused amongst all classes of practitioners, those means must be considered beneficial, as they promise utility to society in general.—They must be pleasing to him who devotes his leisure hours to such labor; as surely there can be no felicity adequate to the exertion of man's abilities for the relief of the wretched;—what satisfaction must he not feel at snatching a fellow-creature from deplorable distress, mitigating his miseries, and enabling him to prosecute his avocations with pleasure and emolument!—What joy must he not experience at being the instrument of preservation to some tender and affectionate parent, upon whose care and attention the happiness of a helpless and innocent progeny is founded! Every means therefore calculated to promote such an end, must merit some degree of approbation; and it is hoped this work will be considered in that light; as it has no other view but that of contributing its mite towards producing public good, and the general happiness of mankind. Should it be fortunate enough

to meet with public favor and protection,
the Editor's labor will be amply repaid,
and he may be encouraged to pursue this
scheme on a much larger scale, and give the
whole of Sauvages's Nosology, with annota-
tions, to the world in an English dress.

A

NOSOLOGICAL TABLE,

WHEREIN

The DISEASES of the EYES
ARE METHODICALLY ARRANGED.

* * * Observe, at the Termination of the Names of Diseases, there often occur Capital Letters, which have the following Explanation.

- A. indicates the Disease to be **ACUTE**.
- B. ————— **SHORT**, quickly terminating, and without danger.
- C. ————— **CHRONIC**, or of long continuance, and dangerous.
- L. ————— **TEPIDOUS**, or lingering, without danger.
- P. ————— **PERIODICAL**, remittent, or intermittent.
- D. ————— **DOUBTFUL**, or whose duration and danger vary, or are not sufficiently certain.

SECTION the FIRST. DISEASES OF THE EYE-LASHES, AND EYE-LIDS.		Class from SAUVAGES.	Order from SAUVAGES.
	§. 1.		
1	TRICHIASIS. Trichiasy, or ciliary Introversion.	7. Dolores. Pains.	2. Capitis. Of the Head.
1	Ophthalmia trichiasis. Ophthalmy from a Trichiasy.		
	§. 2.		
2	HORDEOLUM. Stye, Stian, or Stithe.	1. Vitia. Deformities.	4. Excrecentiae. Excrestences.
2	— Grando.		
3	— Grandinous immoveable Stian.		
3	— Chalazium.		
4	— Grandinous moveable Stian.		
4	— Siro.		
5	— Inflammatorily disposed scirrhous Stian.		
5	— steatomatosum.		
6	— Sebaceous, or melleous Stian.		
6	— verrucosum.		
7	— Warty Stian.		
7	— hydatidosum.		
	Hydatidous, or watery Stian.		

T A B L E.

D I S E A S E S .	C L A S S .	O R D E R .
§. 3.		
BLEPHAROPTOSIS.	1. Vitia.	6. Ectopiæ.
Blepharoptosy, or preternatural Descent of the Eye-lid.	Deformities.	Dislocations.
8 Blepharoptosis genuina.		
True Blepharoptosy.		
9 — lagophthalmus.		
Retracted Blepharoptosy, or Hare-Eye.		
10 — ectropium.		
Extroversion of the Eye-lids.		
11 — entropium.		
Introversion of the Eye-lids.		
§. 4.		
12 Ophthalmia tuberculosa.	7. Dolores.	2. Capitis.
Tuberculous Ophthalmmy.	Pains.	Of the Head.
13 — trachoma.		
Tetter, callous, or scabrous Ophthalmmy.		
14 — siccæ.		
Dry, tarsal Ophthalmmy.		
15 — scrophulosa.		
Scrophulous Ophthalmmy.		
16 — Cancrofa.		
Cancerous Ophthalmmy.		
17 — a Lagophthalmo.		
Hare-eyed Ophthalmmy.		
18 — mucosa puriformis.		
Muco-puriform Ophthalmmy.		
— <i>pustulosa</i> .		
— <i>crysipelatosa</i> .		
— <i>humida</i> .		
— <i>chemosis</i> .		
— <i>Taraxis</i> .		
— <i>venerea</i> .		
§. 5.		
19 Epiphora sebacea.	9. Fluxus.	3. Seri fluxus.
Sebaceous Epiphora.	Fluxes.	Flux of Serum.
20 — ab ectropio.		
Epiphora from palpebraic Extroversion.		
§. 6.		
21 Caligo a Symblepharosi.	6. Debilitates.	1. Dysæsthesiæ.
Caligo from Symblepharosy, or glob-ocular-palpebraic Coalescence.	Debilities.	Imperfect, or abolished Sensations..
22 — ancyloblepharon.		
Caligo from ancyloblepharosy, or palpebraic Coalescence.		

Caligo

DISEASES.	CLASS.	ORDER.
23 Caligo a Blepharoptosi. Caligo from a Blepharoptosy, or preternatural Descent of the Eye-lid.	6. Debilitates. Debilities.	1. Dysæsthesiæ. Imperfect, or abolished Sensations.
24 — a pacheablepharosi. A Caligo from a Pacheablepharosy, or palpebraic incrasfation.		
25 — a Lupia. Caligo from lupial palpebraic Tuberles.		
26 — a Canero. Caligo from cancerous affection. <i>Caligo a sarcomate.</i>		

SECTION the SECOND.

ANGLES OF THE EYES AND LACHRYMAL PASSAGES.

§. 1.

Ophthalmia angularis. Angular Ophthalmia. — ab Ancylope. From a tumor of the temporal canthus. — a Rhyade. From lachrymo-glandular erosion. — a Caruncula lachrymalis Inflammatione. From inflammation of the lachrymal Caruncle.	7. Dolores. Pains.	2. Capitis. Of the Head.
<i>Ophthalmia cancrosa.</i> — scrophulosa.		

§. 2.

PTERYGIUM. Pterygy, a fleshy, or membrana-vascular wing-like Excrecence. Pterygium unguila. Ungulous, or nail-like angular Excrecence.	1. Vitia. Deformities.	4. Excrecentiæ. Excrescences.
3 Pterygium pannus. Web-like palpebraic angular Excrecence.		

§. 3.

4 Caligo a Pterygio. Caligo from a Pterygy, &c. — a farcomate. Caligo from a Sarcome, or palpe-
--

	DISEASES.	CLASS.	ORDER.
	braic flesh like angular Ex- crescence.	6. Debilitates. Debilities.	1. Dysæsthesiæ. Imperfect, or abo- lished Sensations.
	<i>Caligo a Cancro.</i>		
	Sarcoma encanthis.	1. Vitia. Deformities.	4. Excrescentiæ. Excrescences.
6	Interstitial palpebraic or lachry- ma-caruncular Sarcome.		
	§. 4.		
	EPIPHORA.	9. Fluxus. Fluxes.	3. Seri fluxus. Flow of Serum.
8	Epiphora, or ocular efflux, a pathemate.		
	Pathematic Epiphora, or from mental affection.		
9	ab ægylope.		
	Ægylopic, or goat-eyed Epiphora.		
10	ab anchylope.		
	Anchylopic Epiphora, or from an angular cystic tumor.		
11	a Rhyade.		
	Rhyadal Epiphora, or from ero- sion, or diminution.		
12	— cruenta.		
	Sanguineous Epiphora,		
13	— frigida.		
	Cold Epiphora.		
14	— calida.		
	Hot Epiphora.		
15	— ophthalmica.		
	Ophthalmic Epiphora,		
16	— ex variolisi.		
	Variolous Epiphora.		
17	— arthritica.		
	Arthritic Epiphora.		
18	— lactea.		
	Lacteal Epiphora.		
	— ab ectropio.		
	— sebacea.		
	§. 5.		
19	Ophthalmia febricosa.	7. Dolores. Pains.	2. Capitis, Of the Head.
	Febrile Ophthalmia.		
	— cancrosa.		
	— humida.		
	— angularis.		
	— purulenta. }		
	§. 6.		
20	Exophthalmia a protuberantia.	1. Vitia. Deformities.	6. Ectopias. Dislocations.
	Exophthalmia from intra-orbital protuberance,		

DISEASES.	CLASS.	ORDER.
Exophthalmia a scirrho & cancro intra-orbitali. From Scirrus or Cancer.	1. Vitia. Deformities.	6. Ectopiae. Dislocations.
§. 7. 21 Strabismus caligantium a Pterygio. Caliginous Strabism, or Squinting.	4. Spasmi. Spasms.	1. Tonici parcia- lis. Partial muscular Affection.
SECTION the THIRD.		
THE CONJUNCTIVE MEMBRANE.		
§. 1.		
OPHTHALMIA. Ophthalmia. 1 Taraxis. — Taraxical, or simply external Ophthalmia. 2 — pustulosa. Pustulous Ophthalmia. 3 — erysipelatosa. Erysipelatous Ophthalmia. 4 — humida. Humid Ophthalmia. 5 — chemosis. Chemosic, or conjunctiva-corneal-palpebraic Ophthalmia. 6 — Phlyctenodes. Phlyctenoid, or vesicular Ophthalmia. 7 — metastatica. Metastatic Ophthalmia, or from retrocession of morbid matter. 8 — syphilitica. Venereal Ophthalmia. — scrophulosa. — ab ungue.	7. Dolores. Pains.	2. Capitis. Of the Head.
§. 2.		
9 Caligo hyposphagma. Hyposphagniatic, or nigro-sanguinary conjunctival Caligo. — venerea. — ancyloblopharon. <i>Amblyopia hydrocephalmica.</i>	6. Debilitates. Dabilitie.	1. Dysæsthesiæ. Imperfect, or abolished Sensations.
§. 3.		
10 Exophthalmia a chemosi. Exophthalmia, from a conjunctiva-corneal-palpebraic Ophthalmia. <i>Cataracta clavata.</i>	1. Vitia. Deformities.	6. Ectopiae. Dislocations.

DISEASES.		CLASS.	ORDER.
SECTION the FOURTH.			
CORNEAL TUNIC, OR HORN-LIKE MEMBRANE.			
	§. 1.		
1	Ophthalmia ab elcomate. Elcomatic, or ulcerous Ophthalmomy.	7. Dolores, Pains.	2. Capitis. Of the Head.
1	Argema. Argemous, or silvery.		
2	Botrion, Botrionic.		
3	Epicauma. Epicaunal.		
4	Encauma, Encaunal.		
5	Cæloma, Cælomatic.		
6	Elcidrion, Elcidrionic.		
2	a Fistula Cornea. Ophthalmmy from a corneal Fistula.		
3	ab ungue. Ungueous or nail-like Ophthalmomy. <i>Ophthalmia pustulosa.</i> — <i>Scrophulosa.</i> — <i>chemosis.</i> — <i>Pblyænodes.</i> — <i>venerea.</i> — <i>asynchia.</i>		
	§. 2.		
	LEUCOMA.		
4	Leucomy, or corneal speck. nephelium.	1. Vitia. Deformities.	1. Maculæ. Spots or specks.
4	Nebulous, or cloudy speck.		
5	albugo.		
5	Albuginous, or pearly ditto.		
6	cicatrix.		
6	Corneal speck from a cicatrix, or scar.		
7	gerontoxon.		
7	Senil-arcuated corneal speck. <i>Glaucosis Ætii.</i>		
	§. 3.		
	CALIGO.		
	Caligo, or total, or partial obscurity of Vision.	6. Debilitates. Debilities	1. Dysæsthesiæ. Imperfect, or abolished Sensations.
2	a leucomate.		
2	Caligo from a corneal speck.		Caligo

	DISEASES.	CLASS.	ORDER.
9	Caligo a nephelio. Caligo from corneal opacity.	6. Debilitates. Debilities.	1. Dysæsthesiæ. Imperfect or abolished Sensations.
10	— ceratoccle. Caligo from a corneal hernia.		
11	— venerea. Venereal Caligo.		
12	— rhytidosi. Caligo from corneal corrugation.		
	§. 4.		
	AMELYOPIA.		
	Amblyopy, debility of Sight, absolute or relative, with ocular inopacity.		
13	— diffitorum. Presbytal, or long-sighted Ambly- opy.		
14	— proximorum. Myopic, or short-sighted ditto.		
15	— luscorum. Amblyopy from luscity, or oblique vision.		
16	— hydrophthalmita. Hydrophthalmic Amblyopy.		
17	Strabismus a luscitate. Strabism, or fquinting from oblique vision.	4. Spasmi. Spasms.	1. Tonici partiales. Partial muscular Affections.
	<i>Strabismus caligantium.</i> } <i>Leucoma.</i> }		
	<i>Staphyloma.</i>		
	<i>Caligo a staphylomate.</i>		
	<i>Exophthalmia a staphylomate.</i>		
	<hr/>		
	SECTION the FIFTH.		
	THE CHAMBERS OF THE EYE.		
1	Caligo hypoæma. Intro-cameral sanguineous Caligo.	6. Debilitates. Debilities.	1. Dysæsthesiæ. Imperfect or abolished Sensations.
2	— lactea. Lacteal Caligo.		
	<i>Strabismus caligantium.</i> } <i>Hypopygium.</i> }		
	<hr/>		
	SECTION the SIXTH.		
	THE UVEA AND ITS MEM- BRANES.		
	§. 1.		
1	Ophthalmia a synchia. Uvea-corneal Ophthalmia,	7. Dolores. Pains.	2. Capitis. Of the Head,

DISEASES.	CLASS.	ORDER.
2 Ophthalmia uvea. Uveal Ophthalmia. §. 2.	7. Dolores. Pains.	2. Capitis. Of the Head.
STAPHYLOMA. Staphylomy, or aqueo-corneal Cyst, or uveal Hernia.	1. Vitia. Deformities.	5. Cystides. Cysts.
3 Caligo a staphylomate. Caligo from an uveal Hernia.	6. Debilitates. Debilities.	1. Dysæsthesia. Imperfect, or abo- lished Sensations.
4 — ab ectasi. Appendicula-pupillary Caligo. — a synisis.		
5 — Caligo from an uvea-labial Co- alescence. §. 3.		
6 Cataracta membranacea. Membranaceous Cataract. §. 4.		
7 Exophthalmia a staphylomate. Exophthalmia from a Staphylomy.	1. Vitia. Deformities.	6. Ectopæ. Dislocations.
8 Amblyopia meridiana. Meridian Amblyopia. §. 5.	6. Debilitates. Debilities.	1. Dysæsthesia. Imperfect, or abo- lished Sensations.
9 Amaurosis a myosi. Amaurosy, from a Myosy, or con- striction of the pupil. — a narcoticis. Amblyopia proximorum. — diffitorum. — luscorum. Ophthalmia tenebricosa.	1. Vitia. Deformities.	

SECTION the SEVENTH.

CRYSTALLINE LENS, AND ITS
CAPSULE.

§. 1.

1 Ophthalmia a lente crystallina adau- ta. Ophthalmia from an enlarged cry- stalline Lens. Ophthalmia chemosis. — Membranæ anterioris Uveæ.
§. 2.

CATARACTA.
Cataract.

Cataracta

DISEASES.	CLASS.	ORDER.
2 Cataracta vera. True Cataract. a. —— virgata. Striated. b. —— purulenta. Purulent. c. —— agyrias. Argenteal, or filvery. d. —— clavata. clavated, or nail-like. e. —— luxata. Dislocated. f. —— synchesi. Moveable. 3 —— glaucoma. Glaucomy, or exsiccated decreased Cataract.	7. Debilitates. Debilities.	1. Dysæsthesiæ. Imperfect, or abolished Sensations.
4 —— antiglaucoma. Anti-glaucoma, or exsiccated increased Cataract.		
5 —— secundaria. Secondary Cataract.		
6 Strabismus a crystallino. Strabisin from a dislocation of the crystalline Lens. — a luscitate. <i>Amblyopia meridiana.</i> — <i>distantum.</i> — <i>proximum.</i> — <i>luscorum.</i>	4. Spasmi. Spasms.	1. Tonici partiales. Partial muscular Affections.
SECTION the EIGHTH.		
VITREOUS HUMOR.		
§. 1.		
1 Ophthalmia tenebricosa. Tenebricose, or vitreo-pupillary Ophthalmia. — <i>choroidea.</i>	7. Dolores. Pains.	2. Capitis. Of the Head.
§. 2.		
Exophthalminia. Exophthalmy, or protrusion of the Eye. — <i>hydropica.</i>	1. Vitia. Deformities.	6. Ectopiaz. Dislocations.
2 Dropical. Exophthalmy.		<i>Exoph.</i>

DISEASES.	CLASS.	ORDER:
<i>Exophthalmia hydrophthalmica.</i>	1. Vitia. Deformities.	6. Ectopiæ. Dislocations.
§. 3.		
3 <i>Apostema synchesis.</i>		5. Cystides. Cysts.
Abscess from a Synchesy, or aqueo vitreous dissolution.		
§. 4.		
4 <i>Amaurosis a synchesi.</i>	6. Debilitates. Debilities.	2. Dysæsthesiæ. Imperfect, or abo- lished Sensations.
Amaurosy from a Synchesy, &c.		
<i>Cataracta a synchesi.</i>		
<i>Amblyopia proximorum.</i>		
— <i>hydrophthalmica.</i>		

SECTION the NINTH.

RETINA.

§. 1.

SUFFUSIO.	8. Vesaniæ. Unnatural per- ception.	1. Hallucinatio- nes. Depravities.
Suffusion.		
— myodes.		
Myodal, or fly-form Suffusion.		
2 — reticularis.		
Reticular Suffusion.		
3 — scintillans.		
Scintillating, or sparkling Suffu- tion.		
a. Suffusion radians.		
Radiating.		
b. Suffusion coruscans, aut fulgurans.		
Coruscating, or illuminating.		
c. Suffusio Danaës.		
Auripluvial, or ignipluvial.		
4 — colorans.		
Coloring.		
5 — metamorphosis.		
Transforming.		
6 — nutans.		
Distorting.		

§. 2.

7 <i>Amblyopia crepuscularis.</i>	6. Debilitates. Debilities.	1. Dysæsthesiæ. Imperfect, or abo- lished Sensations.
<i>Crepusculous Amblyopy.</i>		
8 — absoluta.		
<i>Absolute or complete Amblyopy.</i>		
— <i>meridiana.</i>		
— <i>dissitorum.</i>		

Ambly-

T A B L E.

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DISEASES.	CLASS.	ORDER.
<i>Amblyopia lusciorum.</i> <i>Ophthalmia.</i>	6. Debilitates. Debilities.	1. Dysæsthesiæ. Imperfect, or abolished Sensations.
§. 3.		
AMAUROSIS. Amaurosy, or suppressed, or abolished Vision, with pupillary Immobility, and ocular Opacity.		
9 — venerea.		
10 — plethorica.		
10 Plethoric Amaurosy.		
11 — exanthematica.		
11 Exanthematic Amaurosy.		
12 — a narcoticis.		
12 Amaurosy from Narcotics.		
13 — foricariorum.		
13 Foricarious Amaurosy, or from cleaning of Privies.		
13 — traumatica.		
§. 4.		
14 Strabismus Buffoni. Buffon's Strabism.	4. Spasmi. Spasms.	1. Tonici partiales. Partial muscular Affections.
14 — connivens.	{}	
14 — divergens.		
14 — inequalis Altitudinis.		
<i>Strabismus a luscitate.</i>		
<i>Ophthalmia humida.</i>		
SECTION the TENTH.		
CHOROIDÆAL MEMBRANE.		
§. 1.		
Opthalmia choroidæa. Choroidal Ophthalmia.	7. Dolores. Pains.	2. Capitis. Of the Head.
SECTION the ELEVENTH.		
BULB OF THE EYE.		
§. 1.		
1 Exophthalmia purulenta. Purulent Exophthalmy.	1. Vitia. Deformities.	6. Ectopiae. Dislocations.
2 — cancerosa..		
2 Cancroid Exophthalmy.		
3 — traumatica.		
3 Traumatic Exophthalmy.		Exoph-

	DISEASES.	CLASS.	ORDER.
4	Exophthalmia critica. Critical Exophthalmy. — a conatus.	1. Vitia. Deformities.	6. Ectopiæ. Dislocations.
5	Exophthalmy from strong Exer- tions.		
6	a steatomate. Steatomatos Exophthalmy. <i>Apoftema synchesis.</i> <i>Exophthalmia purulenta.</i>		
	§. 2.		
	Amaurosis traumatica. Traumatic Amaurosy. — a synchesi.	6. Debilitates. Debilities.	1. Dysæsthesiæ, Imperfect, or abo- lished Sensations.
	<i>Caligo symblepharosi.</i> — a Cancro.		
	<i>Ophthalmia cancrosa.</i> — tenebricosa. — venerea.		
	Strabismus a paralyse. Diplopia a catarrho.		
	 SECTION the TWELFTH.		
	OPTIC NERVE.		
	 §. 1.		
1	Suffusio dimidiata Objecta. Dimidiating Suffusion, or creating a division of Objects.	8. Vesaniæ. Unnatural Per- ceptions.	1. Hallucinatio- nes. Depravities.
	 §. 2.		
	DIPLOPIA.		
	Diplopia, or double Sight. — pyreætica.		
2	Febrile Diplopia. — a debilitate.		
3	From debility. — reinotorum.		
4	Presbytal Diplopia: — a Contusione.		
5	Diplopia from Contusion. — a terrore.		
6	Diplopia from fright. — a temulentiâ.		
7	Diplopia from inebriety.		
	 §. 3.		
8	Amaurosis pituitosa. . Pituitous Amaurosy.	6. Debilitates. Debilities.	1. Dysæsthesiæ. Imperfect or abo- lished Sensations.

DISEASES.		CLASS.	ORDER.
9	Amaurosis scrophulosa. Scrophulous Amaurosy.	6. Debilitates. Debilities.	1. Dysæsthesiæ. Imperfect, or abolished Sensations.
10	congenita. Congenital Amaurosy.		
11	intermittens. Intermittent Amaurosy.		
12	rachialgica. Rachialgic Amaurosy.		
13	hysterica. Hysteric Amaurosy.		
14	exhaustorum. Amaurosy from decaying nature.		
15	arthritica. Arthritic Amaurosy.		
	traumatica. plethoraica.		
	venerca.		

SECTION the THIRTEENTH.

MUSCLES OF THE EYE.

§. I.

1	Exophthalmia a paralyfi. Paralytic Exophthalmy.	1. Vitia. Deformities.	6. Ectopia. Dislocations.
2	a strangulatu. Exophthalmy from strangulation.		
	traumatica. a conatibus.		

§. 2.

3	Diplopia a spasmo. Spasmodic Diplopia.	3. Vesaniæ. Unnatural Per- ceptions.	1. Hallucinatio- nes. Depravities.
4	a paralyfi. Paralytic Diplopia.		
5	ab ancyloblepharo. Diplopia from palpebraic coales- cence.		
6	a catarrho. Catarrhal Diplopia.		

§. 3.

7	Amaurosis a spasmo. Spasmodic Amaurosy.	6. Debilitates. Debilities.	1. Dysæsthesiæ. Imperfect, or abolished Sensations.
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§. 4.

8	STRABISMUS. Strabism, or Squinting. vulgaris. Common Strabism, or Squinting.	4. Spasini. Spasms.	1. Tonici partia- les. Partial muscular Affections.
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DISEASES.	CLASS.	ORDER.
9 Strabismus spasmodicus. Spasmodic Strabism.	4. Spasmi. Spasms.	i. Tonici partiales.
10 — a paralytic. Paralytic Strabism.		Partial muscular Affections.
11 — catarrhalis. Catarhal Strabism.		
12 — symptomaticus. Symptomatic Strabism.		
13 — lagophthalmus. Hare-eyed Strabism.		
14 — myopum. Myopic Strabism.		
15 — æquinoctialis. <i>Caligo a blepharoptosi.</i>		

SECTION the FOURTEENTH.

THE FAT, CELLULAR MEMBRANE
IN THE INFERIOR PART OF
THE ORBIT OF THE EYE, AND
THE ORBIT ITSELF.

§. I.

i. Exophthalmia a protuberantia. Exophthalmia from intra-orbital Protuberance.	i. Vitia. Deformities.	6. Ectopiae. Dislocations.
— from intra-orbital Exostosis.		
— — — Abscess.		
— — — Cyst of Blood.		
— — — Scirrhous of the lachrymal Gland, and Cancer		
— — — hydatids.		
— — — Intumescence of Adeps.		
— — — Lupia.		
— — — Gummata.		
Amaurosis venerea.		

Nosologia Methodica Oculorum :

O R, A

T R E A T I S E

ON THE

DISEASES OF THE EYES.

SECTION I.

DISEASES of the EYE LASHES and EYE LIDS.

§. I.

I. TRICHIASIS, TRICHIASY, or CILIARY INTROVERSION.

THIS is a preternatural direction of the Eye Lashes towards the Globe of the Eye ; when there is a double row of the Eye-lashes upon the internal surface of the Eye-lids, it is called DISTÆCHIASIS.

If the Eye-lashes, being very long, should be hid under the Eye-lids, an Ophthalmmy arises ; which, when the hair is taken away, disappears ; but since the Eye-lashes grow inward, owing to small ulcers of the edge of the Eye-lid, they prick the Eye acutely, inflame, and ulcerate it, till they are extir-

B pated,

pated. It is to no purpose to cut off the hairs, which afterwards shoot up more briskly, they ought to be plucked up by the roots, one by one, some days interposing between the different operations ; and then, in order to prevent fresh ones from succeeding, the place from whence they were eradicated, should, with extreme caution, be cauterized with Lapis Infernalis ; some, indeed, advise, when there is no other remedy, to cut away totally the margin of the Eye-lid which is loaded with Hair. See Heister's Surgery, chap. 46. and St. Yves, chap. 8. p. 8.

The Diseases mentioned by Mr. JAMES WARE under TRICHIASIS, more properly belong to the Blepharoptosis entropium. See §. 3. Sp. 11. OLAUS ACREL observes, that the TRICHIASIS is generally the Effect of chronic Ophthalmia ; in most of the Cases, which he saw, the patient was deprived of Sight ; but in all of them a Cure was effected by cutting out a portion of the outward membrane of the Eye-Lids, which was always preternaturally elongated and relaxed. See Lond. Med. Journ. vol. 3. p. 5; and vol. 1. p. 120.

SAUVAGES

SAUVAGES, and after him Dr. CULLEN, has considered this Disease as a Species of Ophthalmia, and denominated it OPHTHALMIA TRICHIASIS, and it is also arranged with the Blepharoptosis entropium.—In the last it should only be regarded as symptomatic.

There obviously appears to be only one Species of this Complaint, viz.

The ciliary Introversion, in which case the Inflammation of the Eye is merely a Symptom;—and this certainly arises from a derangement of the Eye-lashes themselves; in all the cases enumerated by ST. YVES, Mr. BELL, and others, it is only a Symptom, as it proceeds from some affection of the Eye-Lid, which turning the cartilaginous Margin inwardly, induces the Disease. See §. 3. Sp. 11.

In the Cure of this Disease, simply considered, after plucking out the Eye-lashes, as above recommended, when they have grown again about half their size, they are to be bent outwards, and confined with some mucilage, or adhesive plaister, and kept in that situation for some time, which will generally succeed, and prevent our having recourse to more severe and painful Operations.

§. 2.

HORDEOLUM. So called from its appearance being similar to a Grain of Barley.---Orgeolet.

STYE, STIAN, or STITHE.

This is a hard Tumor, almost insensible, of the color of the Skin, seldom red, growing to the edge of the Eye-lid, for the most part spherical, but of a size less than a pea.

2. *Hordeolum-Grando*----AETII ; with the Greeks, Crithe ; the French Grain de Grêle ;

GRANDINOUS, IMMOVEABLE STIAN.

This is a hard scirrhous IMMOVEABLE Stian in the interior part of the Eye-lid, containing a pellucid body.

3. *Hordeolum Chalazium*.

GRANDINOUS MOVEABLE STIAN.

A MOVEABLE scirrhous Tumor on the margin of the Eye-lid. See Heister's Surgery, chap. 43. L.

4. *Hordeolum-Siro*.---Ciron de paupières.

Inflammatorily disposed scirrhous Stian, or Tuberclie.

5. *Hordeolum Steatomatosum*. SENNERTI ;
Orgueil ;---

SEBA-

SEBACEOUS; or MELLEOUS STIAN.

A small Tubercl^e, or encysted Tumor, called Lupia, on the margin of the Eye-lids, full of mucus, like fat, or honey.

6. *Hordeolum verrucosum.* Verruë des pau-piéres. L.

WARTY STIAN.

7. *Hordeolum hydatidosum.* Aquula SEN-NERTI ;

HYDATIDOUS, or WATERY STIAN.

The Cure may be seen diffusely treated of by HEISTER.

The inflammatorily disposed scirrhous Stian should be dissolved with mucilage Plaister, or Diachylon, or suppurated ; the sebaceous, or melleous opened with a Lancet, and its contents evacuated. The rest are either to be amputated, opened, or eat away with Lapis Infernalis.

HEISTER says, " That almost all the Tuber-
" cles on the Eye-Lids are of the encysted kind,
" some having a small depending basis, and
" others a broad one," the former of which may
generally be taken off by ligature. And also
" from the importance and obviousness of this
" Organ, adds he, we are obliged to undertake

" the Cure, and removal of many of these Tu-
 " bercles, which in other parts of the body
 " might be very well neglected: yet we ought
 " not, even here, to call in the assistance of the
 " Knife, when they are very small, and not
 " troublesome to the sight; for they are often
 " tolerable without danger, though they may,
 " perhaps, give a little deformity.—'Tis remark-
 " able that these Tuberles seldom give way to
 " topical Remedies, nor should we be over for-
 " ward with the use of emollient Cataplasms,
 " which are recommended by some, because the
 " Eye itself may be injured by them, and there-
 " fore extirpation is to be preferred."

Some authors consider it as a species of Wen;
 Dr. Cullen as a variety of the Phlogosis Phleg-
 mone, or Inflammatory Tumor.

Notwithstanding great caution is very necessary
 in all our applications, where so delicate an Or-
 gan as the Eye may be in danger of experiencing
 the smallest bad effect, yet I have seen very hap-
 py consequences accrue from the use of strong
 mercurial ointment in some cases of Scirrhosity,
 by which the Tumors have been dissolved.

Mr. BELL varies his mode of treatment ac-
 cording to the different nature of the complaint:
 If the Tumor should be of the inflammatory
 kind, or like small Boils, he advises Suppuration
 and Aperture.—If of the sarcomatous or warty,
 which

which differ but in degree of firmness, Extirpation with the Sealpel ; and indeed, should it have a small pendulous basis, he prefers this modé to Ligature ; if of the steatomatous, or encysted kind, making an incision through the skin, and dissecting out the Cyst ; if containing a fluid too thin to admit of this operation, he recommends opening the Cyst, rather than attempting to preserve the Cyst entire. See his Surgery, page 264, &c.

§. 3.

BLEPHAROPTOSIS---MAUCHARTII;
Blepharoptosis, Lagophthalmus, Ectropium,
Entropium of the Greeks ; Palpebræ super-
ioris Casus, Retractio, palpebrarum Intro-
versio, Extroversio, of the Latins ; Chûte,
Rélaxation de la Paupière superiore, erail-
lement des Paupérières ; Trichiaise avec In-
tersion des Tarses ; vide PLATNER. In-
stitut. Chirurgic. §. 577, 584. MAITRE-
JAN, par. 3. chap. 18, 19, 20, 21. St. YVES,
par. 1. chap. 8, 9, 10. DIONIS, Dem. 6.
BOERHAAVE de Morbis Oculi, par. 1. chap.
5. HEISTER Chirurg. T. 1. par. 2. sect. 2.
cap. 45, 46, 48. GORTER, Chirurg. repurg.
lib. 5, cap. 10.

BLEPHAROPTOSY, or PRETERNATURAL DESCENT of the EYE-LIDS.

A Dislocation or displacing of either, or both Eye-lids, elongated, retracted, turning inwards or outwards, with different Symptoms in different Species.

8. *Blepharoptosis genuina*.----Blepharoptosis of the Greeks ; Casus Lapsus palpebræ superioris, PLATNERI, BOERHAAVE ; Ptosis. HEISTER ; Chûte, Relaxation de la Paupière, MAITRE-JAN, St. YVES, DIONIS.

A TRUE BLEPHAROPTOSY, or PRÆTERNATURAL DESCENT of the EYE-LID.

This Species arises, First, from a wound of the frontal Muscles of the Temple, or the superior Levator of the Eye-lid ; secondly, from any large Tumor dragging down the Eye-lid ; thirdly from inflammatory, or cold Defluxions elongating the palpebra ; fourthly, from mere relaxations of the Eye-lids, brought on by superfluous serum ; fifthly, from a palsy of the palpebræ, which is sometimes constant, sometimes periodical.

CANTWEL, in the Philosophical Transactions, relates an account of a paralytic descent

cent of the Eye-lid, returning every night with a mucous Epiphora, which the Aquæ Bellulicanæ cured by being poured on the nape of the neck. In this species the Eye-lid cannot be raised by the action of the Muscle, which should elevate it, and hence the Eye cannot be by any means uncovered, at least not sufficiently ; and therefore, for the most part, there is no vision, without the palpebra is continually lifted up by the hand. The varieties of this Species are obvious ;--- With respect to the fifth, it must be remarked, that the Cheek of the same side, the lower Jaw, the Tongue, Eyes, and other Parts, are affected.

The second and third Varieties are cured by conquering the primary disease to which they owe their origin ; to the fourth, corroborating, spirituous Fomentations are useful ; the fifth must be attacked by antiparalytic remedies, administered internally and externally ; which, if in two Varieties, do not properly succeed, a cure must be sought for from a surgical operation performed on the prolapsed palpebra, or on the skin of the forehead, which also treat as in curing the first

first Variety. See PLATNER. DIONIS. & HEISTER.

Besides the external applications advised in the fourth Variety, internal Remedies are considerably serviceable, such as will draw off the superabundant serous fluids, which are chiefly purgative and diuretic medicines, particularly Jálap and the Sal Diureticus. Amongst the Remedies for any paralytic affection, Electricity should be had recourse to, as occasioning the nervous system to exert its power, and by that means recover the action of the muscular fibres of the Eye-lid. As for that Variety which is said to proceed from Relaxation, the use of alum with an infusion of oak bark, is recommended for an external application, which not succeeding, the relaxed skin should be cut away, and the edges of the wounds confined together by sutures, and healed in that situation.

9. *Blepharoptosis Lagophthalmus.* Oeil de Liévre, Lagophthalmie.

RETRACTED BLEPHAROPTOSY, or HAIR EYE.

This happens in the superior Eye-lid : First, from a mal-conformation ; secondly, from

from exsiccation occasioned by too astringent Ophthalmics ; thirdly, from a spasm, or too powerful tone of the muscle opening the Eye ; fourthly, but what more frequently gives rise to it, is a cicatrix following Wounds, Ulcers, Burns, affecting the Eye-lids, or even the Forehead. This may be known by the retraction of the superior Eye-lid, which is of that nature, that it descends only a little, and does not cover the Eye in sleep. There is not any extroversion of the Eye-lid ; at first, the Cornea grows dry, then loses its transparency ; this kind of disease is also observed in the inferior palpebra, nor does it acknowledge any other cause.

In the Varieties of this species, which owe their origin to spasm, or paraly sis, the remedies indicated in those diseases should be tried. If the retraction should be considerable it cannot be cured. In those affections of the slightest sort, nourishing, emollient, and relaxing applications ; drawing the Eye-lid in a contrary direction, and constantly repeating it ; plaisters, or pledges are requisite : but if these should produce no advantage,

many

many are willing to have recourse to surgical operations, contrary to the opinions of GORTER and MAITRE-JAN. See the mode of performing the operation in the Authors cited above, HEISTER, &c. and also BELL.

Though this disease is considered by some as a species of the Ectropium, affecting only the upper Eye-lid, to which PAULUS AEGINETA says it is peculiar, as is the Entropium to the lower one ; that account seems to be erroneous, as no extroversion but only a retraction takes place. In recent cases, relaxants should certainly be first tried, amongst the most powerful of which the vapour of warm water may be enumerated, conveyed to the affected part ; which failing, we are directed to make an incision, if the cause should be a Cicatrix, its whole length ; and thro' the adipose membrane which joins the skin to the muscles ; if the cohesion has a broad surface, two or three incisions, parallel to each other, will be necessary, the different wounds kept extended by bandages, or, in preference, slips of adhesive plaister, over the dressings, till the bottom of the wounds are filled up, that the skin of the Eye-lid may be elongated, and the retraction cured by that means. Should the skin of the palpebra be only contracted, the incisions are to be made like

like a crescent, at equal distances, the points of the crescent in the upper Eye-lid downwards, in the under one upwards, and afterwards we must proceed as before directed.

10. *Blepharoptosis Ectropium. Erailement.*

An EXTROVERSION of the EYE-LIDS.

This species may be observed in either of the Eye-lids, but most frequently in the inferior. First, it originates from a relaxation of the internal Membrane, by too long use of emollients ; secondly, from a protuberance arising within the palpebræ ; thirdly, in Labor, if perchance the Eyes of the Infant should be too much irritated by the fingers of the Accoucheur ; fourthly, from the operation of the Fistula Lachrymalis, if the cartilaginous margin of the Eye-lid should be divided in the great angle of the Eye ; fifthly, from a marginal Dialysis, or solution of continuity, when, by wounds or ulcers, the edge of the palpebra is divided, the corners of the fissure reflected or pulled back ; sixthly, from a cicatrix following wounds, ulcers, or burns. The Symptoms of this species

species are a shortness as well as extroversion of the palpebræ, so that the red interior part, forming a disagreeable appearance, becomes too prominent, nor can the Eye be sufficiently covered.

The first Variety is cured by the use of corroborating astringents and exsiccants continued a long time; the second is remedied by Le Dran's operation. Mem. de l'Academ. R. de Chir. tom. 1. The other Varieties are incurable, some advise a surgical operation, which MAITRE-JAN does not approve. See the Dissertations of MAUCHARTIUS and KECKIUS de Ectropio.

This complaint may be owing to other causes than what are here enumerated. Mr. BELL attributes it to an enlargement of any part of the Ball of the Eye, and tumors seated within the orbit; to dropical effusions between the external skin and the inner membrane of the Eye-lid; violent inflammatory affections of it also; relaxation brought on by previous dropical swelling; by a preceding inflamed state of the part, or as a consequence merely of old age; as well as by a cicatrix of a wound or abscess:

We must advert particularly to the nature of the cause which produces this complaint, and as in

in many cases it is only symptomatic, the cure of the original disease removes the palpebraic extroversion. Should it be owing to a mere local watery effusion, puncture, or scarification on the internal membrane of the Eye-lid will be proper, which may not be necessary in general anasarcaous affections. If to inflammatory affections they should be attended to, and speedily cured ; but in those cases sometimes fungous flesh is produced : After allaying the Inflammation, the fungus should be gradually consumed by the gentlest escharotics. In old age palliative remedies may relieve the relaxation, sometimes form a complete cure, such as spirituous and strengthening applications, cold water alone, or mixed with brandy ; white vitriol, or saccharum Saturni, in form of Collyrums ; but recourse should not be had to chirurgical operations. What we have said before, with regard to the cure of palpebraic retraction, from cicatrices, or contraction of the Eye-lid, will, in this case of extroversion from this cause, be applicable. We should have observed, that, in order to bring the Eye-lids together, at night, and continue them in that position, proper compresses, dipped in egg-water, and applied, are serviceable.

R_e Vitell. ovi recentis No. j. agitetur ad tenuitatem Aquæ, dein cochleatim ad- dantur Aquæ Fontanæ 3ij. & iterum ad perfectam commixtionem agitentur.

II. Blepharoptosis Entropium. Trichiaise avec Inversion des Tarses. L.

INTROVERSION of the EYE-LID.

In this species which comes under the names Trichiasis Distæchiasis (§. 1.) Phalangosis, Ptosis (§. 3. Sp: 1.) the cartilagi- nous margin of the Eye-lid is turned against the globe of the Eye with the Eye- lashes, the symptoms arising from the Tri- chiasis Ophthalmia (§. 1.) coming on ; first, an Emphysema, Oedema, &c, occupying the outward part of the Eye, make the conver- sion ; secondly, it is owing also to a con- traction of the internal membrane of the palpebræ, according to DIONIS, as also ac- cording to MAITRE-JAN ; from a stricture which the humor creates bringing on a dry, or hard lippitude ; for instance, if the hu- mor, pouring down upon the edge of the Eye-lids, should externally swell, and indu- rate them.

In

In the first Variety the method of cure to be observed is that which is necessary for œdematous and emphysematous complaints : which, should there be any occasion, may be succeeded by those remedies indicated in an Ophthalmmy. MAITRE-JAN rejects the operation recommended in that case by the antients, and even by the moderns. In the other Varieties DIONIS proposes the longitudinal incision ; but this author sometimes advises emollients, plucking out the Eye-lashes, and ophthalmic remedies ; tho' they do not, by any means, approve of extroflexion or agglutination of the pricking Eye-lashes, nor burning by actual cautery, nor those remedies, by which they allow the Eye-lashes may be hindered at last from growing up ; but here is an opportunity in this species for the dry future recommended by DIONIS ; by which, if the Eye-lashes should not be returned, LE FAYE says recourse must be had to the operation of the antients, performed in a gentle mode ; viz. in that manner for which he celebrates himself in the true Blepharoptosy. See the Authors above quoted.

Mr JAMES WARE in his Account of the Trichiasis which properly belongs to this Species of Blepharoptosy, makes a Distinction between the Inversion of the upper, and lower Lid ; the former being affected by the equal, tho' contrary Action of the orbicular Muscle, and Levator of the superior Eye-lid ; whereas the lower palpebra has no Muscle correspondent to the Levator of the upper. When therefore the Trichiasis, as he terms it, affects the upper Lid, it appears to be produced by a relaxation of the levator, and a contraction of the upper part of the orbicularis : whereas a Trichiasis of the lower Lid can only arise from a Relaxation of the skin, and a contraction of the lower part of the orbicularis.—As these two cases differ in their causes, the method employed in each must of course be different :—In both, the Cure may either be palliative or radical : the former may be effected by extracting the Eye-lashes by the roots ; the latter by retracting the ciliary edges, and preserving them in this natural situation. In the Trichiasis of the lower Lid, we must encrease the renitency of the skin to such a degree as to prevent the contraction of the orbicularis : but in the Trichiasis of the upper Lid, this would have no effect, and benefit can only be derived from adding a sufficient stimulus to the levator
of

of the superior Eye-lid to excite its proper action.—The Trichiasis of the lower Lid is most frequent.

A curious case of the Trichiasis of the upper Lid is related, in which, after a variety of methods had failed, a cure was effected by the following operation.—An incision was made through the Integuments of the upper Lid from the inner to the outward angle of the Eye ; the fibres of the orbicularis were then seperated, so as to denudate those of the levator Muscle, as near to their termination in the end of the Lid as possible ; which being done a small cauterizing iron, adapted to the convexity of the globe of the Eye, and made pretty warm, was passed two or three times over the tendino-carneous fibres.—This slight irritation produced a salutary contraction of the Muscle, so that after the subsiding of the Inflammation the Eye became useful.

In a recent and slight case of the Trichiasis of the lower Lid, a cure has sometimes been accomplished by forming a fold in the skin below the edge of the Lid, and preserving it in that state by means of sticking plaister, or of an instrument contrived to pinch up a small portion of the skin, and hang it on the cheek. In more stubborn cases it is necessary to cut off a small transverse portion of the skin below the edge of the Lid, and afterwards confine the edges of the wound

C 2 together,

together, by means of a suture; in others of still greater difficulty, viz. where the ciliary edges are not only inverted but contracted, or shortened, relief can only be given by enlarging their circumference, either by an incision at the outward angle, or by a complete division of the cartilaginous edge in the middle. The latter operation is often necessary. See London Medical Journal, vol. 1. p. 120.

Should this disease proceed from an unequal spasmodic exertion of the orbicular muscle of the Eye-lid, BELL advises a slight incision to be made on the external surface of the under palpebra, of such a depth as to divide those fibres of the muscles, whose preternatural contraction appears to be the cause. If from a tumor or cicatrix, the tumor should be extirpated. The cicatrix may be taken away merely by making an incision with the scalpel, so as to surround the whole of it, and afterwards it may be dissected off in a slow cautious manner, and healed in a mode such as the case requires, either simply or by suture.—If from relaxation of the external skin, situated upon or beneath the Eye-lid, an occurrence, which Mr. BELL says he never met with, the mode of treatment recommended §. 3. Sp. 1. must be had recourse to. See BELL's Surgery, vol. 3.

§. 4.

12. *Ophthalmia tuberculosa.*

PALPEBRAIC TUBERCULOUS OPHTHALM.Y.

The Posthia of GALEN. A *poste*;---præputium, prepuce, or *postos*, desiderium, Desire. Tuberclies growing to the Eye-lids are Hordeolum, by the French called Orgeolet, envie, because it is believed, that it happens to those who refuse any thing desired, or rather *longed for* by a gravid woman; Grando: with the Greeks, Crithe; with the French, Grain de Grêle, on account of the hardness and transparency of the tubercles, whence the sclerophthalmia of ARÆTEUS, also by others Chalaza the Præputiolum of CORNARIUS.

Hard, red, indolent, slightly painful tumors arise in the margin of the palpebræ, which resemble, as it were, the prepuce in a Phimofy.

These tubercles are to be softened, that they may be resolved; but should our endeavours not succeed, they should be inflamed, or burnt that they may suppurate, or they should be extracted, and at last

a cicatrix formed; if they should be warts, or atheromata, the excrescences should be tied round their bases with thread, that they may fall off, or be cauterized, or cut out.

They should be softened with mucilage plaster, the Emplastrum de Vigo, with a little soap, &c.—they may be burnt with a drop of Spirit of Sal Ammoniac, or, which acts more quickly, with Lapis Infernalis.— They are taken out with scissars; if the warts, or excrescences, have a stem, they are to be tied with silk, the small ulcer is to be cured by the Unguentum Diapomphologos. See BEORHAAVE on the Stian, and HEISTER's Surgery.

CULLEN considers this as an idiopathic disease, and ranges it under Ophthalmia in his second division, amongst those affecting the margin of the Eye-lid.—An inflammation of the tarsi may be produced by an inflammation of the membranes, and then the same remedies are requisite;—but he says, it may often depend on an acrimony deposited in the sebaceous glands of the part, so as to require various internal remedies according to the variety of the acrimony in fault, as that of scrophula, syphilis, or other diseases with which this

this ophthalmic may be connected, which should be particularly attended to; and where these shall not be evident, certain Remedies, more generally adapted to the evacuation of acrimony, such as mercury, may be employed.

It almost constantly happens, that some ulcerations are formed here; these require the application of Copper or Mercury, which may alone cure, sometimes, the whole affection; and they may be useful, even when the disease depends upon a fault of the whole system.

The gluing together of the Eye-lids in sleep, which happens in this, as well as other Ophthalmies, should be prevented by insinuating a little of any mild unctuous medicine between the Eye-lids, before the patient goes to sleep.

Care should be taken, if any of the Eye-lashes are eradicated, that, after a cicatrix is formed, a Trichiasy may not be brought on by the renewal of the ciliæ; if the hair should appear to turn inwards, they must be managed at a proper time as above directed, §. 1. The general Remedies for inflammation of the Eyes, which attend the different Species will be spoken of at large, when we come to treat of Ophthalmic.

13. *Ophthalmia trachoma.*---P. *Aeginetæ.*TETTERY, CALLOUS, OR SCABROUS OPH-
THALMY.

This is a roughness of the internal part of the Eye-lid. It is called Dafymma, if tettery ; Tylosis, if callous ; Sycosis, if the pustules should be thicker, or scabrous.

It differs from the Psorophthalmy, on account of the hard, miliary, or small pustules within the Eye-lids, but not affecting the Globe of the Eye.

It was epidemic after the Earthquake and Fast, or Lent, at Rome.

It is discovered by a sense of weight in the Eye-lids ; acute pains come on, continual itching, heat and redness in the angles of the Eye, and Tunica conjunctiva----the margins of the Eye-lids appear ulcerated, from which a glutinous lippitude arises with excoriating tears ; in the night the Eye-lids are glued together. If the complaint should be of long standing, the inferior Eye-lid is chiefly inverted *, and the cartilage called

* In old people under similar circumstances, the lower Eye-lid grows thick, and turns downward, so that the cartilage resembles raw flesh.

Tarsus is prominent, like a bow that is bent; the Tarsi are excoriated, and the disease is called by BOERHAAVE Inflammatio excoriatoria palpebrarum;---hence an ulceration of them is the consequence, and also small miliary pustules like small sand, affecting the interior surface of the Eye-lids. This affection is obstinate, and very troublesome; the patients complain of small sand pricking the Eye; by constantly winking they renew the excoriation.

The cure of this disease, when recent, is different from that of long standing.

In recent cases the inflammation is chiefly to be abated by internal Remedies, by bleeding, cathartics, diuretic ptifans, warm bathing, and also by topical applications.

℞ Bulbi Lilliorum ℥jſſ.

Flor. Melliloti

feu

Sambuci ℥j.

Croci ℥j. coque & adde

Farinæ filigeneæ, q. s.

Sal Ammon. gr. vj. M.

With this Cataplasm, rolled up in fine rag, let the Eye be fomented twice a day, until
the

the palpebræ, before tense, become lax and corrugated.---Should it be continued longer a sebaceous Epiphora will succeed, unless astringents, such as roses, pomegranate, the leaves of agrimony, boiled with a little honey of roses, be used.

In those of long standing, with the following the Eye-lids may be anointed :

\mathcal{R}	Sacch. Saturn.	ʒj.
	Cerussæ albæ	Div.
	Camphoræ,	gr. vi.
Cum	Olei Rosar. pauxillo, tere dein adde.	
	Ung. tutiæ, vel	
	Rosacei	ʒj. M.

inunge mane & vesperi palpebras clausas ; si non tolerari possit, ex butyro recente, oleo ceræ, vel cerâ albâ fiat unguentum, solùm leniens.

In ulcerated and scabious palpebræ St. YVES administers the following collyrium :

\mathcal{R}	Hepat. Antim.	ʒij.
	Tutiæ pp.	ʒs.
	Camphoræ,	ʒs.
	Caryophillor. gr. xx.	infundantur per
Ostiduum in Aq. Euphrasiæ		
	Feniculi.	
	Chelidonii maj.	
	Rutæ aa	ʒiv. M.

ter de die instillatur aqua illa in Oculum; vesperi unguentum tutiæ applicetur.----If this should not succeed, the small ulcers of the margin of the palpebræ should be cauterified with Lapis Infernalis, with great care *. If these should be only Herpes in the palpebræ, not any evident ulcer, the following, used four times a day, will suffice :

R Sal Saturni

Ammon. aa gr. iv.

Aq. Rofar.

Plantaginis, aa $\frac{2}{3}$ iv. M.

The Psorophthalmy, or Inflammation and Ulceration of the Eye-lids, appears to be only a Variety of this, which Dr. CULLEN arranges with the former Species, and which WARE says, though often the effect of scrophula and other diseases, as scurvy and lues Venerea, is most frequently a local complaint, occasioned by an ulceration of the ducts of the ciliary glands, which ulcers mix-

* In order to mitigate the severity of the pain occasioned by this method, the part should, immediately after the application, be washed with warm water.

ing

ing their discharge with the mild fluid those glands usually seern, converts it into an acrid humor, which readily inspissates into a hard adhesive scab, and consequently can only be remedied by such means as cure the ulcers which occasion them,—and that is performed by topical applications. The most effectual he thinks the Unguentum Citrinum, made by dissolving one ounce of quicksilver in two of spirits of nitre, the solution poured into a pound of lard melted, and just beginning to grow stiff, and the whole briskly stirred, till an uniform yellow mixture is procured. A little of this, melted into an oil by a gentle heat, is to be rubbed upon the Eye at bed time.—After which a soft plaster of ceratum album is to be bound closely over the Eye-lids, to prevent their adhesion to each other in the night,—and in the morning, the Eye is to be cleansed with milk and fresh butter well mixed together and warmed.—In the slighter degrees of ciliary ulceration, Mr. BELL recommends, as well as the unguentum citrinum, a mercurial ointment of one part quicksilver to four of lard, to be applied, by means of an hair pencil, every night and morning to the parts affected, and once or twice in the day to wash the Eye with a weak saturnine or vitriolic solution;—to avoid the

the light by covering both Eyes, though one should only be affected, with a loose bandage.— In order to prevent its return, as also that of the inflammation, he finds it useful to keep the head shaved, and use local, as well as general, cold bathing to the whole Head and Eyes, and to administer the Peruvian Bark freely, avoiding at the same time every thing which can excite the complaint. See his Surgery, vol. 3.

But as this disease confines itself not always to the margin of the Eye-lids, and sometimes extends itself over the whole surface of the palpebra, and on the cheek, assuming the appearance of an Erysipelas, antiphlogistics and sedatives are the previous applications requisite to subdue the extreme irritability, and then afterwards the unguentum citrinum may be had recourse to, to complete the cure.—Besides, should the disorder owe its origin to any cause existing generally in the habit, that must be particularly attended to, and militated against by such remedies as are adapted to its nature.

14. *Ophthalmia sicca*.----Xerophthalmia.---

P. AEGINETÆ ; Ophthalmia Angulos Oculi afficiens ; St. Yves ab Acrimoniam

San-

Sanguinis. Sp. 5. DE MEYSEREY, No.
386.

DRY, TARSAL OPHTHALMY.

In this Xerophthalmy, there is no tumor in the Eye-lids, a redness and itching only on the margins, scarce any effusion of Tears, the palpebræ agglutinated in the night ; the Eye can scarce bear light reflected from water ; it is more easily cured than the inflammation attended with moisture ; ----though it is obstinate and habitual, as it is supported by the acrimony of the Lymph ; for a slight dysury coming on gives relief, as it were, by a Crisis, a metastasis or translation occurring from the Tunica Conjunctiva to the Præpuce.

Bleeding is often all that is necessary ; but generally a cathartic being administered before, warm baths, repeated for a few days, are crowned with success ; acid waters also drank in the summer season for nine days---cooling gruel, or milk whey, should be taken going out of the bath ;----at night anodynes are of service, particularly to children, according to SYDENHAM.

The topical applications indicated are collyriums of rose and plantain water; mucilage of flea-wort, water of frog's spawn; the leaves of the quince tree, rose leaves; the water, or solution of Saturn, or Sal Saturni, plentifully diluted with water; sugar-candy, &c.---But St. YVES prescribes the following Eye-water:

R Aq. Rosar.

Plantagin. aa ȝij.

Lap. Tutiæ pp. gr. xij.

Sp. Vin. R. ȝs. M. foveatur per
Diem Oculus hôc Collyrio.

In the evening he applies a small pledget dipped in a decoction made of the leaves of male speedwell, thyme, and roses, in red wine; small slices of pears, or apples are excellent sedatives.

Dr. CULLEN ranks this with the two former Species, some consider it only as a Variety of the Sclerophthalmia.

15. *Ophthalmia Scrophulosa.*----Diction: de
Med.

SCROPHULOUS OPHTHALMY.

This is common to scrophulous children, and is humid, with the margin of the Eye-lids swelled, covered chiefly with a viscous lippitude, the tunica conjunctiva red, rather swelled, and the tears acrid,---the afflicted hang their heads down, and have their nose, lips, and neck, rather full and swelled, and often the Cornea is rendered opaque by a Leucoma.

The cause of this disease is scrophulous Lymph, viscid and acrid, which ought to be attenuated, and depurated: repeated cathartics are here estimable, a calomel pill of twelve grains preceding: then opening ptisans which receive into their composition a few steel filings, china root cut thin, and millepedes, a small handful of wild marygold, or half a handful of goose-grass being added. The following ptisan has its uses :

R Rad. Chinæ.

Lapathi aa ȝj.

Coq. in Aq. Font. lb. x. ad lb. v. sub finem coctionis addant. Suimm. cupressi, pugillos tres Rad. Glycyrrh. ȝij. ft. utatur pro potu ordinario.

Twenty or thirty grains of æthiops mineral should be given in a bolus for three days, on the fourth a cathartic. These must again be applied to seven days afterwards ; if the weather will permit, baths in this Species happily succeed---and also, which is more effectual than the rest. a seton should be set in the neck, and suffered to continue, particularly during the temperate months. Sir Hans Sloan's Remedy quadrates aptly with this disease---a collyrium of viper's fat and tutty, at the same time a large blister applied to the nape of the neck. The use of milk is not to be neglected, whilst, in the mean time, collyriums mixed with resolvents drawn from thyme, vervain, and eye-bright, are to be employed, which were not in the beginning safe for fear of increasing the inflammation.

Dr CULLEN arranges this under Ophthalmia, amongst the symptomatic Species which depend on diseases of other parts, or of the constitution in general.—It is productive of many other complaints of the Eye, affecting different parts of that Organ ; when inflamed from that cause, the Eye itself appears of a dull red, or leaden color, there are often white specks on, or near the pupil, small running ulcers are often seated in the great angle, which discharge acrid serum, that scalds the cheek, or a whitish thick matter, that agglutinates the Eye-lids in the morning.

Tho' SAUVAGES here recommends repeated cathartics and large doses of calomel preceding, no good will accrue from them, nor indeed any other mode which contributes to induce debility in the system—gentle aperients may, now and then, be proper; but whatever will give strength to the constitution, assist the digestive powers, and remove the obstructions in the glands, can only be depended on.—Bark and calomel joined with aperients have been attended with success—Med. Obs. V. 1. P. 305.—and also the use of hemlock.—Mercurials joined with Sal Soda and Bark hath been singularly serviceable in many cases ; Sea Water also, and Sea Bathing, in particular states of this disease ;—and colt's foot hath been given with great advantage—all of which will be spoken

spoken of more diffusely when the scrophula is particularly treated of;—I shall now only add with regard to the complaint of the Eye the present subject, I have seen the inflammation give way to the Tinctura Thebaica, dropt into it two or three times a day, which arose from ulcers of the Cornea, and fomentations of poppy heads, which ulcers afterwards yielded to the Aqua Sapphirina, tho' the constitutional malady remained unsubdued.

16. *Ophthalmia cancrosoa*.---Cancer des Yeux.
Cancer palpebrarum. St. Yves.

CANCEROUS OPHTHALMY.

This Species is often distinguished by an exulcerated tumor on the Eye-lids, hard, and lancinating; it is by St. Yves divided into five Varieties, nor did he ever see any other Cancer in the Eyes.

In the first Variety, (*or palpebraic Cancer*) a hard tumor arises on the superior Eye-lid, with the blood vessels turgid at the basis, and of a lead color, attended with lancinating pains at intervals.

In the second, (*or wart-angular Cancer*) a porrum, *a species of Wart*, adheres to the nasal angle of the Eye, below the conjunc-

tion of the palpebræ ; the roots of this porrum are deep, and it is covered with blood vessels, divided into granulated fasciculi, from which, upon the slightest touch, blood issues ; this tumor itches to that degree, that the patient can scarce refrain from scratching, from whence quickly originates a carcinomatous ulcer.-----This Variety is cured by a fluid kept secret by St. YVES, and reserved to his own use only.

In the third (*or varicous Cancer*) the blood vessels are varicose, and of a lead color, without any antecedent porrum, or tumor ; but in the three Varieties, in process of time, an ulceration happens, with fungous flesh, which going off spontaneously, leaves an ulcer extending itself wider and wider, in various parts of the face.

In the fourth, (*or caruncular Cancer*) the disease begins with an Epiphora, or flux, acrid tears, ulcerating the caruncula lachrymalis, and thence eating its way in the superior palpebra, whose edges become afterwards callous ; a lachrymal fissure sometimes precedes this disease.

A blow given to *the Eye* often occasions a fifth, (*glob-ocular Cancer*) by which *the vessels* are bruised, and the blood rather vitiated, is altered by an acrimony peculiar to Cancers, and thus a carcinomatous and callous ulcer becomes the consequence.

All the Varieties, except the second, are incurable; but in order to palliate the disease, milk diet, cooling ptisans, baths, acidulated waters, are required: amongst the topical applications frog-spawn water is recommended, the water also of garden night-shade, with some grains of salt of Saturn, or burnt lead.

CULLEN arranges this with the symptomatic Species of Ophthalmic depending on the diseases of the Eye itself.—This should be treated in the same manner as cancerous tumors of the other parts, where every remedy seems only to be palliative, except extirpation, which last in some of the cancerous affections of the Eye, owe their fatal consequence to mal-treatment in their beginning under the hands of nurses, impudent Quacks, and ignorant pretenders to the surgical art.—In

all cases, where so delicately formed an Organ is the object of consideration, safety can only depend upon the most experienced ; but they are applied to too often, when all hopes of a radical cure are totally lost—See Cancer.

17. *Ophthalmia a Lagophthalmo.*

HARE-EYED OPHTHALMY.

This is a supernatural exposure of the Globe of the Eye, either above or below, from a retraction, or shortness, of one or other of the Eye-lids, in French, Oeil de Liévre.---It is a disease mostly of the superior palpebræ, and proceeds from different causes, as from birth, from a stricture of the Cutis.

The cure requires that the elongation of the palpebra should be procured by every assistance ; after softening it, by reiterated anointing with oil, butter, unguentum ex althæâ ; in the night the superior Eye-lid should be drawn downwards by an adhesive plaister ; the inferior pressed upwards by pledges, and ligatures properly adapted.

If these avail not, though persevered in for a long time, the operation with the knife must be instituted; agreeable to the direction of the Rugæ let the cuticle be divided by two or three parallel incisions, and then the management of the palpebra extended must be attended to. See Blepharoptosis lagophthalmus.

CULLEN arranges it with the former.

* * * 18. *Ophthalmia mucosa puriformis.*

MUCO-PURIFORM OPHTHALMY.

This Species, not mentioned by SAUVAGES, nor taken any notice of by Dr. CULLEN, is termed by Mr. WARE, purulenta; though, at the same time, he confesses the appellation improper, as the discharge is not pus, but colored mucus; Dr. MOTHERBEY, in his Dictionary lately published, styles it Ophthalmia mucosa; this still seems not to be fully expressive, I have therefore added the epithet puri-formis, which will take in the whole idea more perfectly.

This disease rarely happens except to new

born infants. It first discovers itself by a redness in the Eye-lids, which quickly swell to a size so large as to prevent their being separated without the utmost difficulty.---- After which a constant discharge of thick yellow matter soon succeeds ; which, if the Lids can be separated, will appear to be spread over the Eye, so as entirely to cover it. In common, both Eyes are affected in nearly the same manner ; and in bad cases, whenever the child cries, the inside of the Lid is turned outward ; which is also the case, whenever an attempt is made to separate them with the fingers ; this is sometimes the constant state of the Lids ; and though they are restored to their proper situation, by the fingers, yet, on being left to themselves, they immediately return to their former averted state.

This complaint is now and then accompanied with eruptions on the head, and other parts of the body, and sometimes with symptoms of a scrophulous habit.

The matter, if suffered to continue between the Eye-lids and the ball of the Eye, increases the inflammation, and frequently causes

causes specks and ulcers, which very often partially, sometimes totally, cover the Pupil;---these effects may, in a great measure, be produced by the acrimony of the matter; but suppose it bland and mild, its continual lodgment on the Eye, by maceration only, is sufficient to destroy the transparency of the Cornea; and when it has been joined, with the pressure of the swollen Eye-lids, it has been known to cause the Cornea to burst, the humors to be partially, or wholly discharged, and the Eye, of course, to sink in the Orbit. It is said by some, that, if left to nature, the quantity of the mucus gradually increases, till a tea-spoonful may be squeezed from each Eye every day, soon after this, if no extraordinary symptoms attend, the mucus decreases, and, without any art, the cure is effected.

With early assistance success is generally certain; but if neglected, a partial blindness, at least; too often a total one is the consequence. Like all inflammations of the Eye it is apt to terminate in an opacity of the Cornea.

The

The cure is to be attempted, by washing out the mucus with collyria of common Emulsion, and camphorated Julep---warm barley water, &c. till the swelling of the Eye-lids subside; then the applications of cooling Ointments, emollient Cataplasms, gentle purgatives, local bleeding with leeches on the temples, and blisters between the shoulders kept open a proper time---When the turgidness of the Eye-lids, and inflammation of the tunica conjunctiva disappear, then the Cortex Peruvianus is administered internally, and astringent collyria used three or four times a day.

In every stage of the disease the indication is to astringe the relaxed vessels, and check the increased discharge. WARE prefers the aqua camphorata Batanea for this purpose, $\frac{3}{j}$. to $\frac{3}{ij}$. of water, or diluted according to the circumstance of the case. This composition is to be thrown between the Eye-lids, by means of a syringe, in slight cases, once or twice a day, in more inveterate ones, once or twice in an hour, and the stypticity of the collyrium increased in proportion.---To abate the swelling of the Eye-lids, a cataplasm

taplasm of equal parts of Coagulum Aluminosum and Ung. Flor. Samb. applied cold, but without omitting the use of the injection.----If the inside of the Eye-lids is much inflamed, Tinctura Thebaica may be dropt on them, with advantage, every day.----When the Eye-lids adhere strongly, they will be best separated by washing their edges with fresh butter dissolved in warm milk. If there is an Extroversion of the Eye-lids, only when the Child cries, nothing need further be done, than what has been already recommended ; but if this symptom is constant, it will require a more frequent repetition of the Injection, also returning the Lids, and keeping a compress dipped in Aq. Camph. diluted, constantly applied upon them, and there confined, that the propensity may be removed, and the Eye-lids recover their proper tone. If there should be reason to suspect any particular humor in the habit, such medicines as their nature may require, should be had recourse to.----Whether we can discover the origin of the complaint to arise from any vitiated humors inherent in the system acting at so early a period,

period, and being solicited to this part from some external cause, I will not take upon me to determine ; but whatever I have seen, have deduced their origin from less latent sources ; either from the parts being irritated by the too busy fingers of the Accoucheur, particularly in Face Cases ; from too early and too sudden exposure of the infant to the stroke of the cold air, immediately after birth, its Eyes being uncovered ; or from the acrimony of that white viscid Sordes with which the foetus in Utero has sometimes been covered, when the membranes have broken, and the waters passed off some considerable time before delivery. These Causes being known, it is no difficult task to prevent this mischief from succeeding ; in all Face Cases, the Eyes should be washed constantly with brandy and water, every night and morning, before the commencement of the complaint, which would be also proper under the second circumstance ;----in the third, immediately after birth, the child should be extremely well cleared from all the superincumbent sordes, and to the brandy diluted a little Tinctura

Thebaica

Thebaica added, for a slight inflammation will be perceived on the Tarſi, commonly.

Though I have always pursued the intention hinted at in the cure of the Ophthalmia Mucosa, I have been fortunately successful by less elaborate means ; as I considered irritability to be the immediate cause of its beginning and continuance, to allay that was ever my first intention, which generally yielded to a collyrium of distilled water ʒvj. Tinct. Tébaic. ʒij. after washing the Eyes previous to its application, with barley water simply----this was used three or four times a day, when the symptoms considerably abated, I had recourse to the tincture alone, and afterwards some gentle astringent eye-water, I seldom made use of any satur-nine preparations. In obstinate and violent cases, bleeding in the temples I have found singularly useful, and gentle purgatives, joined with Sal. Polychresticus, or preceded by small doses of Mercurials.

Blisters between the shoulders, seemed to be unnecessary, little use being derived from them ; I have ever preferred the application
of

of them behind the ears, but have seldom had occasion to have recourse to them.

The Bark I have rarely seen taken in sufficient quantity to warrant my attributing much success to that medicine; though where children, so young, can be prevailed upon to persist in its use, infinite service may be derived from it, I am persuaded, in relaxed habits, or where the tone of the system wants invigoration.----One instance I shall beg leave to mention of a child about three years old, who had laboured under the Ophthalmia mucosa puriformis for some time, when I saw him, he had besides Ophthalmia, ulcers in his mouth, and on the alæ Nasi, which discharged a very foetid offensive pus; his eyes, though perfectly free from all ulceration, were highly inflamed, the palpebra much swelled, and afforded a very copious and constant puriform evacuation, his lips were much enlarged, his abdomen tumid, his habit costive, his body greatly emaciated, attended with no small degree of hectic fever, and often from the inside of his mouth there issued blood. To his Eyes I used the Tinctura Thebaica only, after being washed with

with barley water and milk, his mouth was gargled with a decoction of bark, in which Tinct. of Myrrh and liquid Laudanum were dissolved, which application was serviceable to his nose; very small doses of Calomel were given twice a day, with a decoction of Bark, and now and then a dose of Sal Polychresticus and Rhubarb was interposed-----besides, the decoction was taken twice in the day without the mercurial, and an anodyne in the evening-----by these means he happily recovered; the glands of his neck, I should have observed, were only slightly enlarged.

§. 5.

19. *Epiphora sebacea*.-----HALLER. Stud. Med. 1. 782. ex RUDOLPHO VEHRENS; Lemæ. HIPPOCRATIS; Lemia, CELSO; Oculi Gramiosi, LUCILIO; Gramia, NONNIO; Lippitudo of Authors; La Chafie-----

SEBACEOUS EPIPHORA.

In the margin of the palpebræ, there are sebaceous Glands, which separate a little unctuous

unctuous matter in an healthful state ; by which perhaps the efflux of tears is prevented ; but sometimes the discharge of this sebaceous fluid is extremely copious. This Lippitude often accompanies the humid, or pituitous Ophthalmmy of HORATIUS ; it clouds the Sight, agglutinates, in the night, the Eye-lids, viz. from eight o'clock in the evening till the following day, but then the Eyes being forcibly opened, the serous Tears flow out.

This is cured by sprinkling upon the part in the evening the powder of Tutty, or washing it with the following collyrium, or some other ophthalmic deterfives, or gentle astringents.

R Aq. Rosar. ʒvijj.

Vitr. virid. vel albi gr. xx. M.

20. *Epiphora ab Extropio.*—

EPIPHORA, from PALPEBRAIC EXTROVERSION.

This is a turning outwards, or extroversion of either Eye-lid :--Entropium, --an Introversion. The inferior Eye-lid is turned outward by luxuriant flesh, which rises upon

on the ulcers of the interior membrane, in which case the excrescence may be destroyed by Lapis Infernalis, until the palpebra, by the elasticity of its marginal cartilage restores itself: or, it is turned outward by an external burn, from which the skin is corrugated ; this, if of long standing, is irremediable ; if recent, it is cured by emollients, as milk, butter, ointment of marshmallows, Galen's cerate, and proper compresses ; or, it is turned outward from relaxation, according to HEISTER, as amongst old people ; to cure this is beyond the reach of art. Exsiccating remedies are proper, dry heat, spirituous applications administered either in form of fomentations or vapors ; the clay, or mud, from warm baths.

The inferior Eye-lid is turned inward by the operation for the fistula lachrymalis, the tendon of the musculus orbitarius being cut asunder, which admits of no cure ; or from a wound dividing the cartilaginous margin, hence it becomes double edged, internal and external. A Suture of the Conjunctiva remedies this, and the skin lays before the untouched Tarsus, if recent ; if of long stand-

E ing

ing there are no hopes from medical or chि-
rurgical skill.

The inferior palpebra is turned outwardly by an Exophthalmia, or swelling of the Globe of the Eye, as well watry as cancerous ; the former is called Hydrocephalmia, or Dropsey of the Eye, which affects both Eyes, and is cured by diuretics, cathartics, &c. the latter follows the nature, and requires the mode of management as in cancer.

See Sect. I. §. 3. Sp. 10. Blepharoptosis ectropium.

§. 6.

Caligo a Symblepharosi. — Prosthesis —
MAUCHARTII.

CALIGO, from a SYMBLEPHAROSY, OR GLOBO-
OCULAR PALPEBRAIC COALESCENCE.

Prosthesis is a cohering of the Eye-lid, chiefly of the superior, with the Globe of the Eye ; it is hurtful to the Sight, or hath a disagreeable appearance, with respect to the latter, as far as this adhesion destroys the mobility

mobility of the Eye, when it cannot turn itself in various directions.

The Symblepharosy chiefly impedes the Sight of distant objects, to discover which the elevation of the superior Eye-lid is chiefly conducive, as experience teaches us, as on the contrary, the Eye-lids wink at objects to be seen very near, that they may exclude the greater light reflected from objects which are closer.

It is either congenital, as from our birth, or acquired, as in cases of Ophthalmia succeeding to a severe ulcer, on account of the Eye being closed a long time.

It is cured by a surgical operation as performed in the ancylo-blepharon, *which see below.*

22. *Caligo ancylo-blepharon.* HEISTERI
Chirurgia. L.

CALIGO, from an ANCYLO-BLEPHAROSY,
or PALPEBRAIC COALESCENCE.

This is an adhesion of the superior with the inferior Eye-lid; whence the Eye-lids wink, and the Rays of Light are either totally, or partially, intercepted. This disease derives its origin from glutinous dis-

charges, such as attend most Ophthalmies, chiefly in ulcerated Eye-lids, and is cured by warm milk, and absorbent powders, commonly of tutty :—or the coalition is a perfect concretion of the palpebræ with each other, and often with the Eye, which is removed by the scalpel in skilful hands ; and here the operator should be more sparing of the Eye-lid than the sclerotic membrane ; the separation being completed, a very thin plate of lead should be interposed, in order to prevent a reunion from again taking place.

Sometimes there is a small aperture, which is generally in the great Angle of the Eye ; if there should not be any, a perforation must be made in either Angle, a probe with a groove then introduced, and with a fine edged knife let the parts be separated.—This done see if the Eye-lids adhere to the Globe, if that should be the case, let them be carefully divided from each other observing the cautions above. If the adhesion is only to the conjunctiva, blindness is not the consequence, if on the Cornea the Sight is inevitably lost. The reunion is better prevented by injection, or lint placed between the Eye-lids, or the Eye-lid and Ball of the Eye, after dipping it in some

some mild liniment, than by a plate of lead, be it ever so thin, as that might from its hardness bring on an inflammation.

Mr. BELL says, when the adhesion of the Eye-lids is slight, and has not been of long duration, it may be separated by the end of a blunt probe insinuated behind it, so as to tear it asunder; but when they adhere firmly, or to the Eye-ball, he advises slow dissection of every adhering fibre, and then the Eye only to be covered with a piece of soft lint spread over with Goulard's cerate, or any other cooling emollient ointment; and after the first dressing, a small portion of the same ointment daily insinuated between the Eye-lids.

—See his Surgery. Vol. 3.

23. *Caligo a Blepharoptosi.*-----St. YVES,
Chap. 9.

CALIGO, from BLEPHAROPTOSY, or PRE-
TERNATURAL DESCENT of the EYE-
LID.

This is a falling down of the Eye-lid, so that it overshadows the Cornea, and is to be attributed to the resolution or inactivity to the levator muscle of the palpebra, and the

E 3 dropping

dropping down is either permanent, or intermittent.

It was cured by bathing it with Aqua Belerucana, at Montpelier ; see Philosophical Transactions, No. 449. in the year 1735. In the continued Species ; exsiccating, and resolvent Medicines are useless ; we must have recourse to excision of the skin. See HEIST. *Chirur. cap. 46.*—BARTISCHIUS's method appears more cruel.—The descent of the superior Eye-lid arising from Atony, has been cured by Electricity. J. G. BAUMER Act. Acad. Montguntiæ, tom. I. p. 186.

The intermittent Species continued every night for twelve hours, with lippitude, and the falling down of the Eye-lid depended upon pachea-blepharosy : *which see below.*

See Sect. I. §. 3. Sp. 8. and Note to True Blepharoptosy,

24. *Caligo a Pacheablepharosi.*—Pacheablephara, GERRÆI ; Pachytes, ZELLERI ; Ptilosis with the Greeks.

CALIGO, from a PACHEA-BLEPHAROSY, or PALPEBRAIC INCRASSATION.

This is an Incrassation of the Eye-lid from tubercles, warts, and stian-like, grandinous, or pultaceous Excrencences on the edges of the Eye-lid.

If the Excrence, as is usual, should grow on the inner superficies of the Eye-lid ; or a larger wart on the margin, if there should be no lancinating pain, and hardness, which might create a suspicion of a cancer, should it have a stem, it must be tied round with a thread ; if small it may be consumed with cathæretics ; if it should be deep seated, the scissars must be used.

If there should be a stian, or its grandinous Species, slightly red, and painful, it must be fomented a long time with resolvents and suppuratives, or its nucleus must be taken out of the Cyst with the scalpel.—If there should be a somewhat large pultaceous tubercle, that must be opened, then the cap-

fule must be removed by mild corrosives, care being taken not to hurt the Eye.

Other tumors of the Eye-lids belong to Ophthalmmy, Anasarca, Erysipelas, Small-pox, Cancer, &c.

See Hordeolum and its Species, Sect. I. §. 2. and Note.

25. *Caligo a Lupia*.---St. YVES, p. 119.----
Pladarotes, MAUCHARTII.

CALIGO, from LUPIAL-PALPEBRAIC TUBERCLES.

Those Tuberclcs, called Atheroma, Steotoma, and Meliceris, &c. are Lupiæ, or encysted tumors filled with juice like pap, tallow, or honey, which often affect the Eye-lids, without pain, redness, or danger; about the size of an hazle-nut; but are hurtful to the Sight, disagreeable to look at, and disfigure the face.

Resolvents are of no service---the cure is from extirpation alone; therefore the patient should be prepared by bleeding and a cathartic; half of the cyst, according to the direction of the Rugæ, should be laid bare, then

then the tubercle, perforated with a little hook, should be dissected out with a crooked bistort, the root extracted with the scissars, then the wound cured by digestives, covering it with Emplastrum diapalma.----If the suppuration should not take away the capsule totally, let the part be touched with Lapis Infernalis, and the capsule gradually dissolved.

The Lipoma, or adipose Excrecence usually arises in the temporal angle of the Eye, near the lachrymal Gland, and recedes from pressure, and presently returns. It is cured by excision, then the wound requires a collyrium of aloes, tutty, and saccharum Saturni in rose water.

26. Caligo a Cancero.—

CALIGO, from a CANCEROUS AFFECTION.

See Cancerous Ophthalmmy.

SECTION

SECTION THE SECOND.

THE ANGLES of the EYES, and LACHRY-
MAL PASSAGES.

§. I.

1. *Ophthalmia angularis*.----Ophthalmie angulaire, ou de l'Angle Nasal.----Inflammatio carunculae lachrymalis. St. YVES, 59, 182, 203. L.

ANGULAR OPHTHALMY.

THIS is known by a pain, and itching, with a tumor, sometimes a redness of the nasal Angle, a puriform Epiphora comes on; many, and those distinct, diseases occasion this Ophthalmmy.----In the first place, from an Anchylops. See Epiphora ab anchylope. Secondly, from a Rhyas. See Epiphora a Rhyade. There is an inflammation of the lachrymal Curuncle, where the blood vessels swell and extend themselves as far as the Cornea, from whence often a pannus, or web-like excrecence, arises.

If

If a pannus should come on, let the following collyrium be used three or four times a day.

R Vitrioli albi

Iridis florentinæ aa ʒj. infunde in
Aq. fontan. ʒvj. fiat.

What is meant by the Anchylops, Rhyas, and Pannus, will be explained under the proper divisions to which each are referred, and on the cure of those diseases will depend the cure of the Ophthalmia, of which we have been now speaking.

CULLEN considers this as an idiopathic Ophthalmia, and is the only one he ranks under the affections of the greater angle of the Eye.

§. 2.

1. *Pterygium*.----Onglet.

PTERYGY----A FLESHY, OR MEMBRANOUS VASCULAR WING-LIKE EXCRESCEENCE.

This is a fleshy, or membranaceous vascular Excrecence, arising at the angle of the Eye, resembling an expanded wing, and extending itself towards the Cornea.

It

It differs from an Encanthis from its membraneous appearance---not spheroidal, nor granulous ; from a Sarcoma, which arises from the palpebræ, and is spherical ; but a Pterygy adheres commonly to the nasal angle itself of the Eye.

2. *Pterygium unguis*. HEISTER, Chap. 57
St. YVES, Chap. 23. Onglet. L.

UNGULOUS, OR NAIL-LIKE ANGULAR EX-CRESCENCE.

This differs greatly from a Caligo, which an onyx, or unguis excites, although they seem to agree in name.

This is cured either by medicine, or an operation. The medicines are cathartics, as burnt alum, white vitriol, also verdigrease, which mixed with sugar very finely powdered, are sprinkled upon the excrescence every day, and consume it ; but if the Pterygy is of long standing, and large, a thread should be passed through it, or it should be dissected off, and what remains be destroyed by gentle escharotics : still after the operation it should be fomented every night and morning with aqua vitæ.

3. *Pte-*

3. *Pterygium pannus*.----le Drapeau.

The WEB-LIKE PALPEBRAIC ANGULAR EXCRESCEENCE.

That Pterygy is the most frequent, in which, with a web connecting the Eye-lids, and extended towards the pupil there are red and turgid veins---See Caligo a Pterygio.

It is cured in the same manner as the former ; but the varicose veins are to be separated and cut with the right hand, and the cohesion with the palpebra destroyed. With these excrescences different Carcinomata, or cancerous affections of the Eyes, are confounded, which differ widely from these.

In performing the operation in order to cure this complaint, great care should be taken not to wound the Cornea ; and though as little of the membrane should be left as possible, some portion had better remain, and be taken off by cathæretics, as this mode will be much the safest. When the membrane, as sometimes happens, covers the whole Eye, we are directed judiciously to divide it by a crucial incision, then separate each part, and proceed as before directed. BELL advises only dividing the vessels, by making incisions

cisions round its circumference, or through its substance, as many as will answer the purpose ; if part of it becomes loose afterwards, separating it, not otherwise. See his Surgery, vol. 3.

§. 3.

4. *Caligo a Pterygio.*----L'Onglet du Yeux,
le Drapeau. L.

CALIGO, from a PTERYGY.

This is called Pterygy from its similitude to a Wing; by some, though improperly, Onyx, Unguis, and Ungula.---It is a membrane commonly from the nasal angle of the Eye, or arising otherwise, and extending itself gradually over the Cornea, in which the sanguiferous vessels are neither prominent nor distinct.

Each Pterygy, Unguis, or web-like Excrecence, the Ophthalmia, should there be any, being first cured, must be consumed, or cut off. To produce the first effect let the following powder be used.

R² Sacch. alb. 3j.

Vitrioli alb. vel Alumin. gr. vi. M.

A little

A little of this should be sprinkled on the part every day. Or administer the acrid collyria, as in a Leucomy; Scate or Eel gall, oil of paper, Lapis Divinus *, juice of Celandine, &c. These being tried to no purpose, with a pair of scissars cautiously cut off the Pterygy, then for four days let the Eye be fomented with aqua vitæ and water mixed, afterwards use the following collyrium:

R Aq. rosar.

Plantaginis aa $\frac{2}{3}$ j.

Matris perlar. $\frac{1}{3}$ j.

Sacch. Saturni gr. vj.

Vitriol. alb. gr. iij. ft.

* Lapis divinus —

R Aluminis,

Nitri,

Vitrioli Cypriani aa p. æ. solvantur
in Ollâ figulina cui addatur Camphoræ paulum.

Six grains of this composition, added to some spoonfuls of water, two drachms of sugar, and one spoonful of spirits of wine, is the Aqua divina.

5. *Caligo a Sarcomate.* St. Yves, Chap. 58.
Mures. L.

CALIGO from a SARCOME, or PALPEBRAIC
FLESH-LIKE ANGULAR EXCRESCEENCE.

A Sarcome is an Excrecence nearly similar to flesh. It is often adipose growing to the Eye-lids at the temporal angle, which also belongs to the nasal. It is of a different color from the part itself, and allied to a Pterygy, or Encanthis. This Sarcome is disagreeable to look at, and hurtful to the sight.

This fleshy, smooth excrescence growing between the Eye-lid and Eye, if it should be granulous and fungous, as well as red, is called Morus, from being like a Mulberry ; by the French Mûre ; if of a lead color Encanthis.

Either of these, if judiciously treated, are without danger. The Sarcome is taken away by two methods, excision and caustic. And first, it is to be touched with lapis infernalis, cautiously avoiding the Eye ; secondly, a filken thread should be passed thro' the tumor by the intervention of a needle, that

that extirpation may be performed by the knife, or scissars: thirdly, then gentle corrosives are to be applied to the wound, such as the following ;

R Pulv. alumin. usti ʒj.

Sacchari. ʒvij. M.

Half a grain of this powder is to be applied to the root of the Sarcome every night and morning.

6. *Sarcoma encanthis.* St. YVES, Chap. 18.

P. 136. In French, Mûre.

INTERSTITIAL PALPEBRAIC, OR LACHRYMA-CARUNCULAR SARCOME.

This is double on account of its seat. One is an excrescence of the lachrymal Caruncle itself; but the other, which is larger, arises between the palpebræ and globe of the Eye; the surface of both is granulous, like a mulberry, whence its name, the color sometimes red, sometimes resembling lead.

Its cure is performed two ways. First, by burning, by applying the lapis infernalis alone to the excrescence; secondly, by ligature, or more properly excision with a lan-

cet, which done, the remaining part should be destroyed with the following powder :

R_x Aluminis gr. xv.

Sacch. alb. 3ij. M.

7. *Caligo a Cancero.* St. YVES. L.

CALIGO, from a CANCER.

See Cancerous Ophthalmmy.

§. 4.

EPIPHORA.-----Delachrymatio, PLINII ;
Rheuma Ophthalmon, GALENI Definit.
Med. Epiphora, GALENI 4. de locis, Cap:
5. TRALLIANI, Lib. 2. Cap. 1. PAULI,
Lib. 3. Cap. 12. Oculi lachrymosi ; Illa-
chrymatio ; Lachrymæ morbosæ, GOR-
RÆI ; Lippitudo serosa, ETTMULLERI ;
Larmoyement.

EPIPHORA, or OCULAR EFFLUX.

This is for the most part a copious and constant efflux of serous humor from the Eyes ; the most common fountain is the lachrymal gland, placed externally above the Eye, whose excretory ducts open on the internal edge of the superior Eye-Lid ; this humor

humor flows by the force of adhesion thro' a triangular space, left between the Cornea and cartilaginous margins, called Tarsi, and issues from the puncta lachrymalia, even as from capillary tubuli, from thence is carried by the nasal duct to the nostrils.

As often as there is no weeping, so often the quantity of tears supplied by the gland, is not larger than that which is transmitted by the puncta lachrymalia ; but it becomes more copious in the first place from a more plentiful secretion ; or secondly from a more sparing resorption ; the secretion is most profuse when the mind is oppressed with grief ; when this gland is irritated by any acrid vapour, dust, or inflammation ; the transmission is more deficient, when either the puncta lachrymalia, or the ducts nasalis, are, by some means or other, straitened, obstructed, or oppressed, hence the various Species.

Dr. CULLEN arranges this under his Class Locales, Local Complaints ; and his Order, which he calls Apocenoſes, Evacuations. It is called by some Authors the Watery Eye.

F 2 8. *Epiphora*

8. *Epiphora a pathemate:*

PATHEMATOUS EPIPHORA, or from MENTAL AFFECTION.

This either accompanies Hysteria, which weeping is quickly succeeded by laughing, or sorrow, or commiseration from some external motive ;---or in very violent diseases, as acute fevers, it happens without any evident cause.----In this case I have observed only one or two small tears, which, if joined with some other of the worst symptoms, is a bad omen ; if the rest of the symptoms threaten not dissolution, it portends only a hæmorrhage at hand from the nose.

9. *Epiphora ab Ægylope. SENNERTI. Fistula Lachrymalis of Authors. La Fistule Lachrymale.*

ÆGYLOPIC, or GOAT-EYED EPIPHORA.

By the name Ægylops is understood an Exulceration, or Abscess in the great angle of the Eye, by which the nasal duct is in part, or altogether affected, so that purulent tears may flow by the nose, as well as the puncta

puncta lachrymalia, then they may flow back again by a fistula formed in the vicinity.

Whence a fistula is divided into complete and incomplete; indeed a Species is recited, in which pus did not flow from an interior abscess of this duct, but from one adjoining, having at that time burst from above---See PETIT and HEISTER.

In this Fistula Lachrymalis, which the obstruction of the nasal duct promotes, an operation of ANELL's, made more perfect by MEJAN of Montpelier, is indicated, viz. a silver wire, perforated at one extremity like a needle, is pushed through one or other of the puncta lachrymalia, into the nostrils, but drawn out from hence, one or two filken threads are passed through the eye of the wire, and drawn upwards by the Eyes. In this nasal duct the threads are left like a serton for a month, besmeared with some detergent ointment, if necessary, and thus a passage is made for the tears, and the fistula healed.

10. *Epiphora ab Anchylope.* L.

ANCHYLOPIC EPIPHORA, or EPIPHORA
from an ANGULAR CYSTIC TUMOR.

Anchylops, as if it were an angular Vision, is a cystic tumor of the temporal canthus, either purulent, or lachrymo-mucous, with Epiphora.

The purulent or spurious tumor is from a subcutaneous abscess, or from an abscess formed between the orbicular muscle, and nasal fac; the first is of no moment; the last is sometimes attended with Epiphora, and may bring on an *Aegylops*.

The lachrymo-mucous anchylops recedes by compression, and then the tears flow back thro' the puncta lachrymalia, or pores of Gunzius----or also flow into the nostrils. It is excited either from thick viscid mucus obstructing the nasal duct; or from an infraction of the duct itself becoming spongy, or swelled by defluxion.

In the former case injection thro' Anell's syringe is sufficient; otherwise constant compression, made by bandage and pledget, repeated through the day, through the night
by

by plaster, the disease is often cured ; spirituous and vinous liquors being added, in which the pledgets have been steeped, and the tone may be restored to the face.

In the latter, a silver probe pushed thro' the puncta lachrymalia, opens the obstructions, a thread or two of cotton also added, observing the directions laid down before.

The purulent Anchyllops begins with a hot, red, lancinating, or throbbing tumor, with fever, epiphora, ophthalmia : it depends on a true inflammation of the lachrymal face, which suppurates---whence it is distinguished from the lachrymous anchyllops, and dropsy of the nasal face ; the puncta lachrymalia pour out pure pus, not puriform mucus, which is scarce distinguishable from pus, unless by the antecedent symptoms. The nostril of the same side is dry, unless something flows out in the night, which often happens. In that Species the inflammation continues or recedes ; if it continues, spare, cooling diet, and bleeding, may be had recourse to ; cooling ptifans may be used, nor should the antiphlogistic cathartics be neglected.

If a resolution should not succeed, a cataplasma of roasted apple, mixed with the white of an egg, should be administered, or with pulp of cassia, that suppuration may go on, which completed, the abscesses should be opened with a lancet, deterged with injections of barley water; the lachrymal sac should be kept open with a small tent, and a cicatrix formed.

ii. *Epiphora a Rhyade.* AVICENNAE. Algarab, amongst the Arabians.

RHYADAL EPIPHORA, or from EROSION, or DIMINUTION.

The existence of this Species is greatly doubtful, unless a Rhyas may be occasioned by an erosion of the lachrymal sac; and therefore irritation, redness, and pain may be present, on which account the little ducts conveying the tears from the puncta lachrymalia to the nasal duct, are constricted; for tears do not flow, as many with the antients suppose, from their gravity in an healthful state; so that this caruncle being defective, they therefore flow not; as no one weeps merely because he lays with his face downwards.

Tho'

Tho' SAUVAGE considers this Species as very doubtful, still we have descriptions given of it by GALEN—he says “ It is an affection of the Eye diametrically opposite to Encanthis, consisting of too great a diminution of the lachrymal caruncle, in the larger angle of the Eye. RIVERIUS allows the cause of it to be a con- fuming, exsiccating, or corrosive matter, and so it either succeeds or accompanies a fistula lachrymalis ; according to FÆSIUS, Eyes thus affected are denominated by ÆTIUS, Rouades, or Ruades.”

In SAUVAGE’s account of the Anchyllops above there seems to be obviously an error, for he attributes that disease to an encysted tumor in the temporal angle, whilst his description all along advert to the nasal.

Why the distinction of the Antients should be at present neglected with respect to the anchylops, and ægylops, and a general term adopted, which is in itself highly absurd, will not be easy to account for. Surely to denominate a complaint fistulous, where no fistula exists, must be ridiculous—and the three different Species here enumerated are by the Moderns called Fistula Lachrymalis. Some of the antient Physicians considered

sidered the lachrymal sac, in its state of tumefaction, as an anchylops, when ruptured an ægylops ; and certainly the distinction ought to be preserved. However, I have subjoined the notes belonging to them in this place, and they will be considered according to the different affections of which they treat, collected in this general view.

Dr. RITCHER does not allow that this disease often happens from an obstruction of the nasal duct—but very rarely.—He observes, if the disease remains uniformly the same, if by compression no fluids are forced into the nostrils, if in the early stage of it, the lachrymal Sac is neither painful, nor inflamed, and that the fluid, which regurgitates from it, is a colourless mucus, or water, we may reasonably ascribe the complaint to an obstruction of the duct, provided these symptoms have been preceded by any cause likely to produce such an effect ; but it will seldom happen that the disease will cause the Sac to inflame, and the fluid contained in it to assume a puriform appearance. But it may be the case, thro' mismanagement, or some other accidental cause exciting inflammation.—Under this circumstance he recommends an incision to be made into the lachrymal Sac, which then is to be lightly filled with lint, and covered with a plaster ; four or five days after this operation, when there is no danger of an

an hæmorrhage, MEJAN's probe is to be passed, armed with catgut, and suffered to remain there four or five days, then it is to be removed, and one of a greater thickness introduced in its stead. In this manner proceed for about a month, increasing the size of the catgut every five or six days, till it is equal in bulk to the natural size of the duct : this catgut is to be removed every morning, and the Sac cleansed by injecting into it barley water, and honey, or any other emollient liquor ;—the catgut should be pulled down always through the nostrils. At the end of four weeks, the emollient is to be exchanged for a drying injection of lime water, or Goulard's vege-to-mineral water, and instead of the catgut, a leaden probe is to be introduced into the duct, and the use of it continued for two months, or till there is not any longer the appearance of pus, and till a fluid injected into the Sac passes readily and copiously into the nostrils, or the patient's breath, when his mouth and nostrils are shut, forces its way with violence through the Sac.

The cure also has been performed by the introduction of a gold or silver tube, in preference to any other modes.—See Watkins's Method of Application, 4to. Cadel, London, 1781.—Lond. Med. Journal.

The Epiphora, or Fistula Atonica, is owing to a state of atony, which prevents the lachrymal Sac from propelling the tears into the nostrils.— This though is seldom a primary disease, but generally produced by some other Species, either that from obstruction of the nasal duct, or the small-pox, Scrophula, Tinea, Arthritis, Lues Venerea, &c.— Strengthening applications are here recommended, and gentle pressure to prevent too great a distention of the Sac. London Med. Journal.

Mr. BLIZZARD proposes a method, Philosophical Transactions, Vol. 70. Part 1. which will perhaps avail only, in the first and simple stage, which is filling the Sac and Duct with quicksilver, by means of an instrument formed of a fine steel pipe, a little curved, cemented in a glass tube, six inches long ; at the top of the tube is a wooden funnel ; the pipe must be passed into the inferior punctum, which may be done without pain or difficulty. The quicksilver then poured into the funnel, and, when it regurgitates from the superior punctum, withdrawn. In an experiment the quicksilver remained in the Sac and Duct thirty hours without exciting pain : on the third day the operation was repeated, and, upon gently compressing the Sac, the greater part of the congealed mucus, and quicksilver passed

passed into the nostrils: After the second or third operation, the swelling and distention of the Sac entirely subsided. The patient, after this process had been repeated four times, at the intervals of a few days, had no discharge of mucus, or a tear but very seldom; so that the part had a perfect healthful appearance.

Mr. BELL, in speaking of the Fistula lachrymalis, considers a sinus of the lachrymal passages attended with callosity, as alone deserving the appellation; though he enumerates the different states, which, with other authors, constitutes this complaint, arising from an obstruction to the passage of the tears into the nostrils.

The first Variety is when the lachrymal puncta, and duct connected with them, are sometimes obstructed, in consequence of burns, wounds, or severe inflammatory affections; and this only ought to be termed Epiphora, or a watry, or a weeping Eye, as the tears necessarily, in this simple state, fall over the cheek.

The second Variety is allowed, when the lachrymal puncta and ducts remain open, if obstruction takes place either in the under part of the lachrymal Sac, or in the duct leading from it into the nose, which is known by a small tumefaction forming in the internal angle of the Eye, which disappears by pressure, by a plentiful flow
of

of tears passing into the Eye, and from thence over the cheek, and some portion of them frequently pass into the nose, on the Sac being pressed ; this state of the disease, where the tears are pure, is called a dropsy of the lachrymal Sac ; —frequent application of pressure often performs a complete cure ; at least prevents the disease from giving much uneasiness.

The third Variety is formed, when the passage into the nose is completely obstructed, the swelling in the corner of the Eye increasing, but still retaining the natural appearance of the skin. The tears are now mixed with thick, opaque, white mucus, differing considerably from purulent matter ; at last the tumour inflames, becomes tense, red, and painful to the touch, and the matter pressed out has a greater appearance of purulence. The tumor now puts on the form of a common boil, or abscess ; it becomes gradually more inflamed, and more tense, till the integuments burst :—when the aperture is small it heals in a few days, but soon bursts again, and continues alternating in this state of collection and rupture, till the aperture becomes sufficiently large to prevent any farther accumulation ;—here now is the appearance of a sinuous ulcer, with callous, and sometimes retorted edges, and hence the true Fistula lachrymalis :

—when

—when the bones beneath are found the discharge is seldom either acrid, or offensive to the smell, but when carious, that state is not only discoverable by the introduction of a probe, but the matter is thin, fœtid, and commonly so acrid as to fret, and corrode the Teguments most contiguous to the ulcer ; and when connected with scrophula or lues Venerea, the discharge and appearance of the sore will be different according as it happens to be combined with one or other of these diseases.

From what has been here advanced it is obvious, that whatever forms an obstruction in the lachrymal passages, whether cold, measles, inflammatory affections, or tumor in the contiguous parts, may constitute this disease, whether the obstruction be in the nasal duct, or in those leading from the Eye to the lachrymal Sac, in both which cases the mode of cure will be nearly the same.

If the cause is inflammatory, the antiphlogistic method should be adverted to, and the inflammation taken off as quickly as possible ; if from other diseases the method adapted to their cure must be persisted in : but should the passages be left obstructed after the inflammation is taken off, or the general morbid affections subdued, and a slight fullness only remain, occasional pressure, from time to time, with the finger, is the

the only remedy BELL advises, as by this mode the complaint may be rendered very supportable, and all risque avoided of encreasing it, which would probably occur from trying the various methods instituted by probes, catgut, injections, quicksilver, &c. which he considers not only hazardous but uncertain.

It does not appear that any forcible objection can lie against BLIZZARD's method, where practicable, particularly if the obstruction in the nasal ducts should only be partial, and the tears will in part flow into the nostrils from pressure of the lachrymal Sac ; on the contrary, it bids fair for expediting the cure, and paving the way for its being easily confirmed without any danger.

But when the tumor in the angle of the Eye becomes larger, inflamed, and painful, as the matter collected in it will be found sharp and acrid if not soon discharged, the contiguous bones may be affected by it.

In this case the Indications are,

To discharge the contents of the tumor—To procure a free passage in future for the tears—And to prevent it from being again obliterated.

In order to attain these ends an incision should be made into the swelling, which, if firm and hard, should previously be softened with warm emollient

emollient poultices applied constantly over the parts affected, in the most prominent and depending part, with a common lancet, and this should be pushed through the superior part of the tumor, clearly into the sac, and carried down in a strait direction to the most depending part of it. The contents being forced out of the swelling by gentle pressure, the wound should be kept open by dossils of lint covered with emollient ointment; or a piece of pressed sponge, dipped in melted wax, and in a fold of thin soft linen soaked in oil, of a size only sufficient to dilate the lachrymal sac, so as to admit of a free examination for the beginning of the duct running to the nose.

This being done, and the sore sufficiently cleared of a tough viscid mucus, which, for a few days after the operation, it is always covered with, we must endeavour to clear the nasal duct, by inserting a firm round pointed probe, into the bottom of the lachrymal sac, insinuating its point into the commencement of the duct, and pushing it forward into the nose, which passage must be kept open till it is rendered perfectly clear and pervious by a piece of bougie, catgut, or lead wire.

But when the duct is obliterated, or the above operation proves unsuccessful, an easy and free artificial opening must be made into the nose

from the back part of the sac, through the os unguis, by a straight trochar, guarded with a canula—which will be known to have perforated through the bone by a small quantity of bloody mucus passing out at the end of the nose. In performing this operation, the instrument should be pushed on towards the nose in an oblique direction downwards, from the inferior part of the lachrymal sac, to that part where the nasal duct commences, and a perforation made by giving the trochar a rotatory motion. After this, thro' the canula, a leaden probe should be introduced, and pass freely through the aperture in the os unguis ; the other end, after the canula is withdrawn, should be curved, standing about the eighth part of an inch above the surface of the external sore, which must now be covered with dressing of emollient ointment, and over them adhesive plaister. The leaden probe should be worn at least eight or nine days, sometimes longer. After it is withdrawn, and the external wound healed, moderate pressure should be applied upon the course of the lachrymal sac by the patient's finger, or otherwise, till the sac, and parts contiguous have recovered their tone ; and this also should be done, and the leaden probe continued as long, when the natural passage has been opened, as well as in this cure.

Notwithstanding the greatest care, the disease will sometimes return, which is attributed to some general constitutional disease, or carious bones. If to the latter cause, the tumor must be again opened, and an exfoliation promoted, and afterwards another opening made in the os unguis ; if from the first, a repetition would be fruitless. In every case, however, where the common operation has failed, canulas of highly polished gold, ought to be constantly worn, which may be done with proper management, introducing them after the inflammation occasioned by the operation, is over, and the opening formed in the os unguis is become somewhat callous, by the use of the leaden probe ; care should be taken that the canulas should be of an exact length, to penetrate into the nose, and to permit the teguments to heal above them.

When the tumor becomes ulcerated, the incision should be made with a scalpel upon a director, introduced into the ulcer, instead of a lancet :—If the os unguis, and contiguous bones are carious, the sores must be kept open till the diseased parts are removed, and if the fistula still remains, the operation must be performed as before. For a more diffuse and particular account of this disease, &c. see BELL's Surgery, vol. 3.

Fistula lachrymalis venerea, see Note under Venereal Ophthalmia.

12. *Epiphora cruenta*.---Lachrymæ Sangui-næ. SENNERTI, Cap. 4. & fusé SCHENCKII, Libr. Observationis.----Larmes de Sang. See Menorrhagia erronea, P. Borelli, Cent. 2. Obs. 56. L.

SANGUINEOUS EPIPHORA.

* * * We have an account of this given us by Dodonæus, in a girl sixteen years of age, corpulent, of a warm constitution, and plethoric habit, who not having begun to menstruate, drops of blood would frequently fall from the Eyes, in the manner of tears;—blood drawn from the ankle was serviceable, to which the menstrual discharge in a little time succeeded. It also arises from the obstruction of the Catamenia, and requires a return of them through the uterine or vaginal vessels; which we should attempt to procure at the usual period, when known, by bleeding in the foot, pediluvia—semicupia—gently stimulant and relaxing vapours conveyed to the uterus, warm fomentations to the pubes, and lower part of the back, purgatives of aloes and calomel—Tinctura Melempodii, and other uterine stimulants.

Where this complaint arises from torpor in the vessels of the uterine system, which is perhaps generally

generally the case, such stimulants should be used as from their power will increase the vascular action of those parts, joined to local applications ; and here cantharides are not an ineffectual medicine. If the obstruction should arise from spasmodic affections, antispasmodic and opiates are serviceable, always taking care, at the same time, to solicit the blood to the uterus by some external means.

13. *Epiphora frigida.* SENNERTI, C. 46.

COLD EPIPHORA.

This is an involuntary efflux of serous tears, without itching, pain, and heat ; at least in a small degree only, if at all.

This follows long continued Ophthalmies though cured ; immoderate applications to study, as it happens to those about the age of fifty, when the sight is diminished, and objects, unless placed at some distance, cannot be seen. Winter coming on it is more violent, and cured with more difficulty. In the mean time, if the patient abstains from study, salt meats, and wines, avoids wind and smoke, and at night foments his Eyes with the following collyrium, this effect will decrease,

R Caryophillorum No. 4.
infundantur in Aq. Vit. ȝij. & ft. collyrium.

But if for so slight an inconvenience he will have recourse to cathartics and blisters, as some authors advise, he will be the judge of their success.

14. *Epiphora calida*. SENNERTI, Cap. 46.

HOT EPIPHORA.

This is a distillation of a serous humor from the Eyes, which is attended with a pricking heat, itching, redness, and pain of the Eyes, and this accompanies different Species of the Ophthalmia, chiefly the ulcerous and fistulous.

In this, besides the general remedies, as bleeding and cathartics ; baths, cooling pti-fans, milk whey, and also collyria slightly astringent, as those of roses, plantain, acacia, galls, red wine, vitriol, &c. are useful.

15. *Epiphora Ophthalmica*. Sennerti ; Epiphora, GALEN. Introductione ; Lippitudo sanguinea. ETMULLERI, Page 297. Ophthalmia humida, Sennerti ; Chassie.

L.

OPH-

OPHTHALMIC EPIPHORA.

See humid Ophthalmmy,

16. *Epiphora ex Variolis.* ETMULLERI. L.

VARIOLOUS EPIPHORA.

This profusion of tears follows the small-pox, where pustules, suppurated, perhaps, within the nasal tube, produce its coalition, or infarction from thicker pus; it sometimes attacks the lachrymal duct; but whether always or not is a doubt. This therefore remains to be enquired into. Many infants, as they increase in years, are freed from this complaint.

This Epiphora is very rarely cured, as it commonly degenerates into a Fistula Lachrymalis, from a coalescence of the nasal duct, seldom originating from a mere mucous obstruction. RITCHER says he has found it the most difficult to conquer of any; though in scrophulous cases he has succeeded by means of Iffues, Bark, Calomel, and extract of Hemlock; and when owing to a venereal taint, by Mercury. It has come on from the drying up of the Tinea Capitis, or

scald head, but disappeared upon its return.
Medic. Journ. Lond.

Though in the cure of some general diseases, where this is an attendant, on their being removed, the Epiphora often vanishes, still it is seldom the case in the small-pox; it for the most part, when formed from that source, is left as a consequence, which must be treated according to the state, whether anchylopic, or ægylopic, as directed in those diseases.

17. *Epiphora arthritica.* MUSGRAVE de Ar-thritide. Cap. 18. 21. L.

ARTHRITIC EPIPHORA.

A retropulsion of the acrid arthritic humor of the gout from the feet gives rise to this Species, which alternates with gouty pains, as well as sometimes excites the tooth-ach, or pain of the lower jaw, attended with an efflux of tears.

This requires bleeding, blisters applied between the shoulders, and also the mildest collyria; as milk dropt into the eyes, the mucilage of flea-wort, or quince-seed, rose-water,

water, trochisci albi rhazes, plaintain-water, &c.

In all cases of the retrocedent Gout, we should be very solicitous in drawing it back to the extremities, by warmth, stimulating cataplasms or plaisters applied to the feet.—Bleeding will rather, in such constitutions as are subject to this retrocession, be detrimental, by weakening the habit, and decreasing the circulatory powers, and thence increasing the causes from whence, most likely, this complaint originated. Anodyne topical applications, jointly with what have before been mentioned, are preferable, such as collyria, with Tinctura Thebaica, fomentations and cataplasms of poppy heads, &c. In strong robust habits, if the retropulsion hath been occasioned by accident, such as cold, or any indiscretion, the lancet may not be so improper, otherwise it is certainly better omitted;—internal remedies, which will produce a gentle dia-phoresis, and that supported by such medicines as neither heat the habit too much, or relax the tone of the stomach, are ever singularly serviceable.—It is said in the Medical Journal of London, that an arthritic fistula is apt to return in Spring and Autumn; but has been removed by

by issues, and the use of Aconitum, Antimony, and Bark.

18. *Epiphora lactea*. Ephemer. Germ. Dec.
2. Ann. 7, Obs. 98.

LACTEAL EPIPHORA.

This happened to an infant newly born.

§. 5.

19. *Ophthalmia febricosa*.---MORTONI Pyretologia.--Exerc. 1. Cap. 9. De St. MARTIN Journ. de Medic. Sept. 1760. p. 228. B.

FEBRILE OPHTHALMY.

A severe periodical pain of the Eye, attended with no redness, but with weeping, thirst, quick and strong pulse, urine very high coloured and turbid, was cured by the Peruvian bark.

CULLEN denominates this a Symptomatic Ophthalmmy, and ranks it with those, which proceed from diseases of other parts, or of the whole body.

Some

Some other Species of the Ophthalmia might be not improperly arranged under this Section, as affections of the parts here spoken of; but they also materially affect other parts of the Eye, and that most commonly primarily, and therefore under those respective heads it hath been thought more regular to place them, though in the Table annexed to this work they will be specifically arranged in each place.

§. 6.

20. *Exophthalmia a protuberantia.*

EXOPHTHALMY, from INTRAORBITAL PROTUBERANCE.

This may arise from a scirrhus, or cancer of the lachrymal gland.

Observation hath often convinced us that scirrhi have arisen, and grown to a large size, from the sebaceous and other glands in the Eye-lid.— The caruncula lachrymalis has been also similarly affected. HILDANUS extracted such a scirrhus growing in the great angle of the left Eye, as large as a chesnut, with success, and performed

formed a cure, without hurting the Sight, in the space of three weeks.—By the same author we have a more dreadful account related, of a large, hard, livid scirrhus, beginning to be cancerous, larger than a goose's egg, pushing out beyond the Eye-lids, attended with a violent hæmorrhage ; this tumor, with the whole globe of the Eye, he extracted from the orbit, and cured the patient perfectly.

In the London Medical Observations, we have an account of a Cyst, detached from the lachrymal gland. The symptoms were pain and dimness of sight in one eye, which continued a long time ; afterwards in that eye total blindness succeeded, and protrusion of the globe, so as to form an extroversion of the interior palpebra. On examination by pressure, a resisting fluid was perceived underneath, which was imagined to be contained in a cyst from the lachrymal gland.—The complaint was cured by extraction of the cyst, and the Eye returned in time within its orbit, and some sight was recovered.

In order to perform the operation, the surgeons covered the sound Eye with an handkerchief tied round the head, and then compressed upwards the distorted palpebra, till it was brought as near as possible to its natural position, and thus held tight, till the integuments were cut through, into the lower part of the orbit of the Eye ;

Eye; under the adnata, an aperture sufficient being made to introduce a finger behind the globe of the Eye, so as by the touch to be able to direct a sharp pointed scalpel, which perforated the substance underneath.—Immediately a thin pel-lucid liquor was discharged, filling nearly a small wine glass. After some respite two small hooked instruments were introduced to catch hold of the cyst, and it was completely extirpated. The wound in the orbit was filled with lint, and dry dressings, and there secured by a proper bandage; but within less than twenty-four hours, the patient's head and neck, a great way down that side, were swelled, and inflated to a prodigious degree. This symptom was, however, after some time, removed, by enlarging the wound, and dressing it only very lightly with dry lint, and by a few gentle purges; so that in less than a month the whole was completely healed.

§. 7.

21. *Strabismus Caligantium.*

CALIGINOUS STRABISM, or SQUINTING.

Those are said to labor under Caligo, who cannot, from a perceptible and external disease, see clearly; as from *Pterygy, Pannus, Leucoma, Hypopyum.*

If,

If, therefore, the opacity of the Cornea should be in the region of the Pupil, in that case the afflicted are forced to see laterally from the space between the leucoma and nostrils, or between the leucoma and external angle of the Eye.—See the cure of Caligo from these causes.

SECTION THE THIRD.

THE MEMBRANA CONJUNCTIVA, or CON-
JUNCTIVE MEMBRANE.

§. I.

OPHTHALMIA; Pituita. HORATII; Lipitudo, CELSI; Oculorum Inflammatio; Dolor Oculorum, SENNERTI; Ophthalmonia, HEISTER; among the French, Ophthalmie, Mal aux Yeux.

OPHTHALMY.

THIS is a disease of the Eye, discovered by pain, redness, incapacity of bearing the light, and weeping. The pain and incapability of bearing the light, are the two principal symptoms—Redness is only present in external Ophthalmies.

When an Ophthalmy is attended with inflammation, as it generally is in most Species, redness, heat, tumor, and tension accompany the pain: the cause of all which is the impetus of the blood against the sanguiferous vessels of the Eye, thence a distraction

tion of the nerves ; but internal Ophthalmies arise, which run into suppuration without any redness, or tumors that are conspicuous, as when the crystalline lens matures, and this BOERHAAVE allows a lymphatic inflammation.

The incapability of bearing the light proves the increased sensibility of the retina, whether there should be a phlogistic infarction ; or the choroidæal membrane, or its expansion the uvœa, should become too tense ; or the sclerotica should have, at the same time, consentaneous affections : in all these cases the myosis, or contraction of the pupil takes place, and is proportional to the inability mentioned above.

With regard to the cure of Ophthalmies, as far as they belong to external inflammation ; at first, if necessary from the prevalent plethora; bleeding and general evacuants are requisite; with the antiphlogistic regimen ; topical bleeding may perhaps be sufficient, and leeches are preferable to arteriotomy ; the number of leeches should not be less than three, confined in this application as near each other as possible, in the hollow of the temples :—bleeding in the Eye itself,

Itself, though strongly recommended by some, is apt to irritate, and is only necessary when a leucotomy is fed by one or more distinct blood vessels, then they may be divided with the lancet or needle.—Bleeding in the jugular vein is often serviceable—and keeping the head shaved in obstinate cases is highly proper.—Blisters of the size of half a crown, applied over the orifices made by the leeches are useful.—The chief topical application is opium, joined with some gentle stimulant, as the Tinct. Thebaic, Pharm. Londonensis. In slight cases this is commonly of itself sufficient, and indeed in more obstinate cases, after proper evacuations, two or three drops should be dropped into the Eye affected two or three times a day. Opium simply dissolved in water is not sufficiently efficacious, it should be joined with some gentle stimulants ; a practice similar to this was known to the ancients ; for in CELSUS we find almost all his collyria for this complaint have the lachrymæ paververum joined with stimulants in them.—Keeping the body cool by proper diet and medicines, should be observed, and the Eyes free from any thing which may irritate them.

Dr. J. GULDIBRAND recites a case, which recurred after the small pox, where blisters, evacuants, saturnine, and other topical applications were tried without effect, and the inflammation

increased so much, that matter was discovered perceptibly behind the Cornea, (as happens in some cases of Ophthalmia ab ungue, hence called Ophthalmia hypopyum, q. v.)—In this alarming state an issue was made in the patient's arm, and this, together with a cooling diet, and occasional purges of jalap and calomel, effected a cure, in about three weeks.

Dr. CULLEN divides Ophthalmia into inflammation of the Tarsi, and membranes of the Eye. These are sometimes separate, sometimes connected together, but are to be distinguished, as one or other may be the primary affection. The complaint arises from spasm of the minute extremities of the small arteriolæ from external causes, as also from internal acrimony of the humours with local congestion.—In the inflammation of the adnata, there is a turgescence of the vessels, attended with pain, especially upon motion of the ball of the Eye; and this irritation, like every other applied to the surface of the Eye, produces an efflux of tears from the lachrymal gland. The inflammation commonly and chiefly affects the tunica conjunctiva, spread on the anterior part of the ball of the Eye, but usually spreads along the continuation of the adnata, on the inside of the Eye-lids; and as that is extended on the cartilaginous margins, the excretaries of the sebaceous glands opening there, are also

also frequently affected; when the affection of the adnata is considerable, it may be communicated to the subjacent membranes of the Eye, and even to the retina itself, which thereby acquires so great a sensibility, that every impression of light becomes painful.

According as the conjunctiva is more or less affected, or according as the inflammation is either of that membrane alone, or of the subjacent membranes, the inflammation of the membrane of the Eye is in different degrees, and upon these differences, different species have been established, and different names given to them—but are to be cured by remedies of the same kind.—The different circumstances of the Ophthalmia may be explained by the difference of its remote causes, and by the different parts of the Eye which it happens to affect.

The cure of the Ophthalmia of the membranes requires the remedies proper for inflammation in general, and when the deeper seated membranes are affected, and especially when pyrexia is present, large general bleedings may be necessary. But this last is seldom the case, and for the most part the affection is purely local, accompanied with little or no fever. The cure therefore is obtained by topical bleedings, viz. drawing blood from near the inflamed parts, opening the jugular vein, or temporal artery;

it is commonly sufficient to apply a number of leeches round the Eye.—It is perhaps better to draw blood by cupping, and scarifying the temples. In most cases, the most effectual remedy is that of scarifying the internal surface of the inferior Eye-lid, and dividing the turgid vessels on the adnata itself.

Purging is sometimes useful, where general evacuants are necessary, not otherwise.

For relaxing the system, and taking off the determination of the fluids to it, blistering near the part, has commonly been found useful.

Ophthalmia, as an external inflammation, admits of topical applications. All those, however, which encrease the heat, and relax the vessels of the parts, prove hurtful.—The admission of cool air to the Eye, and the application of cooling astringent Medicines, which, at the same time, do not produce irritation, are of service.—All irritation, and particularly that of light, is to be avoided—hence the patient should be kept in a very dark chamber.

The same remedies may be necessary in the tarsal Ophthalmia, as far as it depends upon an Ophthalmia of the membranes. See Note to Ophthalm. tubercul. p. 22.

1. *Ophthalmia Taraxis.*—AETII PAULI,
Lib. i. Cap. 22. Ophthalmia notha,
SENNERTI; Ophthalmia catarrh. St.
YVES, Sp. 3, De MEYSEREY, Art. 383,
382. B.

TARAXICAL, or SIMPLY EXTERNAL
OPHTHALMY.

This is the mildest of all the Ophthalmies, being supported by no internal, præ-existent defect in the habit, and depends only accidentally on some occasional cause, as cold, evening dew, smoke, wind, straining the Eyes by looking at minute objects, from the effluvia of onions, garlic, dust, &c.

This is cured both by nature and art, viz. Nature sweeps away, or washes off dust, or acrid miasma, by a flux of tears; she appeases the pain arising from light by closing the Eye-lids in the day time; medical art, the imitator of nature, stretches over the Eye a shade made of green silk; advises darkness; orders the Eye to be washed with warm water; and also the patient to abstain from all offending causes, which create stimulus; chiefly reading in the night, wind,

and sun-shine : if any thing should adhere to the Eye, or between the Eye-lid and Eye, it should be extracted, first having the Eye-lids elevated, with a small feather, a piece of soft paper, or rag.

Though in common cases early attended to, the modes of cure here recommended are generally sufficient, yet still some times extraneous bodies will adhere so firmly, that they will require a probe guarded to take them off, and often repeatedly washing the Eye by means of a syringe ; sometimes they will stick into the Eye, and be obliged to be extracted by forceps.— Whenever an inflammation comes on very suddenly, the body otherwise apparently in perfect health, the Eye should be examined with attention ; for in most of those cases some extraneous body adhering to some part of the Tunica adnata, constitutes the cause.—From such a circumstance, a particular friend of mine was bled, purged, fomented, and poulticed, by the advice of a very inattentive, or ignorant surgeon, and would probably have experienced a longer continued and severe regimen, had he not fortunately been relieved by the sagacity and experience

rience of a more informed practitioner.—But should any extraneous body remain so long, as is sometimes the case, before it is extracted, or washed away, the inflammation even will continue afterwards, we must then proceed to remove the effect by the means above directed, as in the cure of Ophthalmia.

2 *Ophthalmia pustulosa*—St. YVES. Maladies des yeux ; Ophthalmie Bourgeonée. L.

PUSTULOUS OPHTHALMY.

In this Species Fasciculi, or small hurdles of red vessels, run from the interior tunic of the Eye-lid to the Cornea, and at its periphery a pustule is formed of the size of a lentil—but if the pustules should reside in the Cornea itself, there pus being formed, the abscess discovers itself by its whiteness.

The cure requires a solution of aqua divina (see Caligo a Pterygio) in water, if the pustules touch not the Cornea—but should they touch the Cornea, and have formed abscesses, that the abscesses may be opened, distilled water of camphor is drop'd upon them guttatum, and when the pustules

are opened, we must have recourse to a solution of the Lapis divinus.

3. *Ophthalmia erysipelatosa.* St. Yves, Sp. 8.

ERYSIPELATOUS OPHTHALMY.

This is more properly herpetica, tettery—for in this, besides the redness of the tunica conjunctiva, tumor of the Eye-lids, with intolerable pains of the head and Eye, and excessive heat, crustæ arise, and furfuraceous scales on the forehead, temples, and nose, which being healed the cicatrices of the parts remain.—The disease is obstinate and difficult to cure.

It requires first a fomentation;

R Aq. Flori Sambuci ʒix.

Sp. Vini Rectif. ʒj. M.

Secondly, a seton should be made in the neck, bleeding, and a cathartic, having been premised, and also we must have recourse to blisters placed between the shoulders, and ears, on account of the pains, should it be required; reiterated bleeding will be necessary; and anodynes must be called to our assistance.

4. *Ophthalmia humida.* Epiphora. GALENI
Introductione Ophthalmia vera. SEN-
NERTI.

HUMID OPHTHALMY.

This is as habitual as the dry Ophthalmy, as it has its fomes in the mass of blood, whence it becomes obstinate.—This is known from the abundance of tears, and swelling of the Eye-lids round the tarsi, as well as copious inflammation; lancinating pains of the Eye; incapability of bearing light; redness of the interior part of the Eye; with the impossibility of opening the Eye-lids;—hence specks succeeds in the Cornea—often amongst children the cheeks will be excoriated by the tears; the nose and lips swell from the prone situation, and hanging down of the head.

Bleeding in the arm, foot, and neck, and also three or four leeches applied in the vicinity of the Eye, are requisite; on the third or fourth day, a cathartic of senna, manna, and tamarinds;—these being complied with ptisans of lettuces, sorrel, and endive should be used, at night narcotics, a large vesicatory should be applied between the scapula; or in

in children, the discharge from the ears should be promoted, and encouraged, that a revulsion of the acrid serum may be solicited from the Eyes.—The cathartic should be repeated, and domestic baths used, unless the state of the tongue, and stomach forbid them.—In the mean time the mildest collyriums are to be applied to the Eyes ; the pulp of apples boiled in milk ; new milk itself whilst warm, mucilage of quince seeds and flea-wort, white of egg with rose water, or which is preferable, because it glues not up the Eyes, the white of egg inspissated with a little alum, and folded in cloth ; also the white of egg boiled hard, and cut transversely, dipped in rose or plantain water ; the heat being appeased, rose water with a little aqua Saturni, or saccharum Saturni may be administered. Or,

R Aq. Rosarum

Fænicul. aa 3ij.

Sacch. Satur, gr. ij.

vel

Trochis. alb, Rhaz. 3*fl.* M.

The pain being relieved, the Eye ought to be sprinkled with pulvis tutiæ in the night, that

that the Eye-lids may be opened in the morning, otherwise a lippitude glues them up ; lastly, in this inveterate Ophthalmia, vitriol, either white or roman, ought to be dissolved in water, so that if dropped into the Eye, it may create a smart, but momentary pain, the following produces that effect.

R. Aq. Rosar. 3vj.

Vitriol. alb. 3i.

Sacch. alb. 3j. M.

That collyrium ought to be used at night, nor should the Eyes be loaded with compresses, or bandages ; those acrids should never be used in the morning ; but the Eyes should be fomented, or bathed with warm water, or rose water.

There are some who add three grains of verdigrise to the vitriol, or who administer wine, in which copper money has been infused ; or who infuse the lapis divinus in water, and in the evening drop a little in the Eyes ; which collyria, also happily succeed, if only the blood has been rendered bland and mild, by the use of baths, bleeding, and broths,

5. *Ophthalmia Chemosis*.—St. YVES, Sp. 9.
Chemosis, Ætii ; Traumatica de MEY-
SEREY, Art. 382, 383. A.

CHEMOSIC, or CONJUNCTIVA-CORNEA-
PALPEBRAIC OPHTHALMY.

This arises from an external cause, as a violent contusion of the Eye, whence an hypophthalmia, q. v. or from a chirurgical operation performed on the Eye, an extraction of a cataract ; from the operation for the unguis, or empyesis, &c. or from an internal cause, as metastasis, or severe catarrh, in cachymic habits.

It is known by the black-red swelling of the *Conjunctiva*, with a depression, and obscurity of the *Cornea*, which seems to be in a cavity.—The inflammation is severe with excruciating pains of the Eye, and head, a sense of weight also above the orbit, pervigilium, fever, pulsation, a swelling, and occlusion, or shutting of the Eye-lids.—It terminates sometimes in suppuration of the Eye, whence an irremediable blindness, at least leucomata succeed it ; the blood drawn into

into a bafon has a coriaceous surface on the crassamentum.

Not any thing is more useful at the onset, than repeated bleedings in the arm, feet, and neck; some leeches should be applied to the palpebræ, which SAUVAGES has often ordered; some have recommended Ophthalmoxysism, or scarification of the Eye; after two or three bleedings, the following cathartic.

R Fol. sennæ. 3ij.

Rhæi 3j.

Sem. Lini:

Flor. Violar. aa Pugill. 1.

Mann. 3ij. vel 3ijj.

Aq. bullientis q. s: ut ft. infusum.

Some prescribe a more drastic cathartic of scammony; we must again return to bleeding; at night diacodion, or laudanum, in order to produce sleep, should be administered, with a cooling, dilute diet.

In the mean time the Eye ought to be fomented with warm milk, pullet's blood, the warm pulp of apple boiled in milk; all cataplasms which from their weight prove noxious should be prohibited; an infusion

of

of saffron, linseed, and marsh-mallow leaves will suffice ; but after a few days resolvents may be tried, as wine or aqua vitæ mixed with water ; nay, should a livid color, a diminution of pain point it out, aqua vitæ camphorated, is indicated.—St. YVES recommends pledges moistened with wine, in which an handful of rosemary, sage, and hyssop have been infused to half a pint ; and also, if the palpebræ and the conjunctiva cease to fwell, the following collyrium.

R Aq. fæniculi ȝij.

Sp. Vin. camphor. ȝs. M.

particularly if leucomata be present.—In the mean time the diluting drink should be changed for a resolvent one ; which should be made with four pints of ptisan, with one dram of the diaphoretic mineral.—A blister should be applied between the shoulders ; the body should be kept lax with clysters ; broths of chicken, cold feeds, endive, lettuce, and sorrel, the use of the former ptisan being over, should be continued for ten days.—If signs of a suppuration be present, the hand of the surgeon is necessary, to eliminate the pus ; and heal the wound.—if a synchesis or dissolution

dissolution of the vitrous humor comes off; an artificial Eye should be fitted to the place of the natural one, that at least deformity might be avoided.

6. *Ophthalmia phlyctænodes.*—Phlyctainæ of Authors. Phlyctænæ Corneæ, SENNERTI; Phlyctides, also from phlizein, fervere; Pustulæ, by the Arabians Bothor.

PHLYCTÆNOID, or VESICULAR OPH- THALMY.

These are little vesicles, or bubbles about the size of a grain of millet seed, arising commonly in the Cornea and Conjunctiva; which, when in the latter, are surrounded with a red or black circle; when in the exterior lamina of the Cornea, they grow black; when they lurk deeper they are white; sometimes SENNERTUS has observed them larger, and solitary, equal to the size of an hazel-nut;—They terminate either by resolution, which is the most eligible mode, or by rupture into the interior parts, or by an external ulcer, which sometimes erodes the Cornea to a considerable extent.

In order that the resolution may be obtained, let the general aids called into Ophthalmic be had recourse to, such as bleeding, spare diet, emollient fomentations; cathartics are not to be omitted.—Let the fomentations be made as follows:

R Sem. P̄syllici Mucilag.

Cydoniorum

Fænugiaci, aa ʒij.

Aq. Rosar. ʒij.

Flor. Samb. ʒiſ.

Croci ʒj. Ft.

The pustule having subsided, or the inflammation remitted, resolution may be thus attempted.

R Aq. Rosar. ʒij.

Euphrasiæ ʒiſ.

Opii

Tutiæ aa ʒi.

Vitrioli albi gr. xij. Ft.

The white, nay the yolk of an egg with sugar and saffron is useful, fomentations also of decoctions of mellilot, vervain, rue, and red roses. If the pustule should remain, let it be opened with a silver needle, and let the ulcer be cured as ordered in the caligo, from the unguis, and elcoma, q. v.

8. Ophthalmia metastatica.

METASTATIC OPHTHALMY, OR FROM RETROCESSION OF MORBID MATTER.

This arises from a retrocession of morbid matter of the gout, scabies, tetter, erysipelas, issues, fetons, ulcers, &c.

Besides the general assistance, this disease requires a solicitation of the return, or renewal of those complaints, and fluxes of humors which occasioned it.

These five CULLEN ranks under the first division of idiopathic Ophthalmia affecting the Tunica Adnata, and membranes, or tunics of the Eye, lying under it.

9. *Ophthalmia Venerea*—BAGLIVI, pag. 202.

Ophthalmia Gallica ZACUTI Praxis ;
Ophthalmia venerea, CAMERARII Dif-
fertat. Tubingæ. 1734. Aloys LUISINI. p.
665. LOCHER. de Lue venerea ; Ophthal-
mie Vénérienne. St. Yves, Sp. 10.

VENEREAL OPHTHALMY.

This is divided into two Varieties; Metastatic, or translation of matter, and sympathetic.

tomatic ; each of which depend upon the venereal virus, and grow worse towards night.

The symptomatic remits towards morning, never runs into a chemosis ; the morbidic matter never changes its place, the pains are more lenient, it is conquered by the syphilis being cured, and imports less danger : it is observed in the second stage of the syphilis.

The metastatic does not remit towards the morning, it always runs into a chemosis ; the morbidic matter changes its seat ; it is attended with more violent pain ; the syphilis being cured, cures not this Ophthalmmy, and besides is more dangerous.

The heat, pain, redness encreasing in bed, must be attributed to the venereal virus, and also, because the disease resists common remedies.

The metastatic Ophthalmmy is discovered from a tumor of the sclerotic membrane, and its livid appearance, as well as severe lancinating pain, the Cornea being depressed as if in a small cavity ; and also from this, the gonorrhœa being repressed by a translation
of

of the venereal virus into the Eye ; and very often the gonorrhœa incurable before, has vanished this Ophthalmmy arising; and this Ophthalmmy has succeeded reciprocally on the return of the gonorrhœa.

The venereal Ophthalmmy in general is cured by mercury, but never to be applied to the Eyes ; some recommend sudorific decoction, and mercurial pills internally ; at Montpelier inunction alone is exhibited.— In the metastatic venereal Ophthalmmy besides mercury, it is expedient to evacuate the virulent matter collected in the cellular texture of the sclerotic membrane, and Eye-lids, by slight scarifications of each membrane ; but ichor, very like that of a gonorrhœa, issues forth, according to the illustrious NICOLAS, and CAMERARIUS ; SAUVAGES thinks it would be better to institute that operation, after a mercurial course had been entered upon, than previous to it, as CAMERARIUS recommends.

It is very like the humid Ophthalmmy, and chemosis, except that in the syphilitic, the conjunctiva is as it were fleshy, and a little hard ; it begins with a lippitude, or

I 2 sebaceous

Sebaceous epiphora very copious, from white becoming yellow, it resists all remedies except the antisiphilitic, it often comes on after a gonorrhœa has been stopped unseasonably two days. A surgeon of Montpelier contracted this Ophthalmia by laying upon a pillow besmeared with a syphilitic ptyalism.

The cure here requires an extinction of the venereal virus; mercurial inunctions, with the unguentum Neapolitanum are held in the highest estimation; twenty-five, or a greater number of baths having preceded, after bleeding and a cathartic. St YVES advises the mercurial panacea.

R Panaceæ mercurialis 3j.

Rhæi pulverizati. 3ij.

Bals. Copaii. q. s. ft. Opiata, cuius dosis 3j. quotidie manè sumenda, purgetur æger quarto quoq; die.

R Aquil. alb. (calomel)

Gum. Ammon. aa gr. xv.

Trochisar Alhandal (Colcynthidis) gr. v.

Syr. Flor. persic. q. s. ut ft. bolus.

But it is very often better to use the most common purgative.

PLENCK divides this into two Species :

An Ophthalmia from gonorrhœa,—and from an universal lues.—Of the first he says, a very copious flux of a putiform humor, two or three days after the suppression of the gonorrhœa, of a whitish yellow colour, and like the matter which flows from the penis in that complaint, issues from the inflamed Eye. The redness of the Eye almost always runs into a high inflammation, so that the Cornea, from the extreme tumefaction of the membrana albuginea, appears depressed. This Ophthalmia generally degenerates into suppuration and exulceration of the Cornea and albuginea, from which an opacity of the Cornea, an hypopyum, or incurable blindness, from the internal parts of the ball being destroyed, remains.

Immediately on the attack of the inflammation, bleeding should be prescribed, and an antiphlogistic purgative, then thirty grains of a mercurial pill, formed of one part quicksilver, three of gum Arabic rubbed into a mucus with syrup of succory and rhubarb, to which is added half an ounce of the crumbs of bread, must be taken every day ; and the Eyes washed with mercurial milk, made of quicksilver one part, gum Arabic four parts, rubbed into mucus with syrup of diacodium, to which must be ad-

ded cow's milk eight ounces, or a very dilute solution of corrosive sublimate, every hour. By this method he has cured many, and prevented blindness. Whilst, by the common modes of bleeding, leeches, blisters, issues, purgatives, given for eight days, discutient cataplasms applied to the Eyes, and emollient fomentations to the penis to solicit a return of the gonorrhœa, besides scarifications of the membrana conjunctiva, have had no effect ; and by this method he has seen many become blind.

Bougies besmeared with venereal virus, and introduced into the urethra, might be tried to solicit the return of the gonorrhœa ; as LANGE relates such an effect produced by impure coition in a patient afflicted with the gonorrhœic Ophthalmmy.

The second Species is not so violent, remits about morning, and never runs into a chemosis.

It is cured in the same mode—He makes use also of his balsamum ophthalmicum mercuriale, which follows :

℞ Butyri recen. insulsi ʒijj.

Ceræ albæ ʒß, liquefactis, adde

Merc. præcip. rub. ʒijß.

Tutiæ ʒi,

Camphoræ, in oleo ovor. Өß, solutæ

gr. xxxxv. ft. unguentum. ter de die

lentis magnitudo illiniatur oculo.

A de-

A decoction of mallows, in which a grain of corrosive sublimate had been dissolved, sometimes was quickly serviceable.

He speaks also of a VENEREAL LIPPITUDE, which he describes, an exsudation of a puriform humor from the margin of the Eye-lids. This he divides into two Species—

1. A LIPPITUDE from a GONORRHOEA, or FLUOR ALBUS SUPPRESSED.

This Species is a fore-runner of a gonorrhœic Ophthalmmy ; but it is sometimes a chronic malady.

2. VENEREAL LIPPITUDE of NEW-BORN INFANTS.

Infants born of a venereal parent, some weeks after their birth, begin to be afflicted with intumescence of the margins of the Eye-lids ; in a little time after a large quantity of whitish green pus flows from the Eye, such as is discharged from the urethra in a gonorrhœa, the inflammation of the Eye is sometimes trifling, sometimes considerable. This lippitude is the primary symptom of the lues venerea lurking in the infant. Sometimes it appears without any other venereal sign, and, injudiciously treated, runs on into the worst species of suppuration of the Eye, and blindness.

Both these require the same mode of cure as the last venereal Ophthalmmy.

The VENEREAL FISTULA LACHRYMALIS of the same author is defined—

An efflux of puriform liquid, expressed from the puncta lachrymalia, from venereal virus being deposited in the glands of the lachrymal sac, and thus divided—

1. A LACHRYMAL FISTULA from a SUPPRESSED GONORRHÆA.

It is cured by the pill above described, taken internally, and externally by the application of a very dilute watery solution of sublimate. PETIT cured a fistula in each lachrymal sac, and an ulcer in the palate, arising from a latent lues, by mercurial frictions.

2. LACHRYMAL FISTULA from a CAVIES OF THE LACHRYMAL BONE.

This is the worst Species—besides internal mercurials, it requires spirit of mastic mixed with corrosive sublimate to be applied to the caries.

The VENEREAL STIAN he describes,

A red tubercle like a small boil, on the margin of the Eye-lids, originating from venereal virus.

It is cured by the mercurial pill internally, and the application externally of the mercurial milk.

CULLEN arranges these two Ophthalmies under the symptomatic division from diseases of other parts, or of the whole body.

§. 2.

10. *Caligo hyposphagma*. JONSTONI. Id. medic.

Hæmalops. HIPPOCRATIS; Hypopyon GALENI, Ecchymoma, with others; Suggillatio, with the Latins; Tarfen of the Arabians; Ecchymose œil poché, Meurtrissure de l'œil.

HYPOSOPHAGMATIC, OR NIGRO-SANGUINARY CONJUNCTIVAL CALIGO.

Hyposphagma is a suffusion of blood, and blackness in the tunica adnata of the Eye. It differs from an Ophthalmia in want of pain, heat, and inflammation. It is complicated with it in the beginning, if it proceeds from a blow; but sometimes it may arise from internal causes, as scorbutic virus, &c. in which case antiscorbutics are of service only.

If from a blow, or contusion, it is cured by repeated bleeding, equal to the pain, inflammation, violence of the stroke, and number of symptoms, and also leeches applied to the Eye-lid.—Secondly, In the beginning the warm blood of a pigeon, or pullet, should be

be poured into the Eye ; warm milk tinged with saffron ; a collyrium of white of egg and rose water, shook together.—Thirdly, The pain being relieved, warm wine, aqua vitæ, fennel water, decoction of hyssop, the leaves of pellitory bruised in wine, or vulnerary water ; a cataplasm of them, or rag dipped in them, are to be applied three times a day.

§. 3.

11. *Exophthalmia a chemoſi.* St. Yves, par. 2. chap. 4, 5, 6. ASTRUC de Morbis Venereis, lib. 9. cap. 3. §. 3. D.

EXOPHTHALMY, from a CONJUNCTIVA-CORNEA-PALPEBRAIC OPHTHALMY.

This arises from a stroke given on the Eye, or in its vicinity ; from a critical defluxion falling upon the Eye in fevers ; from a phlogistic lensor translated from an inflamed part to the conjunctiva ; from a metastasis or translation of that humor which flows sparingly, or not at all, in a virulent gonorrhœa, made upon the conjunctiva.

The

The diagnostic symptoms are, such an in-tumescence of the conjunctiva inflamed, painful, and hot, that appears higher than natural to the finger placed over it; the Cornea lays depressed, as it were, at the bottom of a round cavity; pain of the head; very great pain in the Eye; and heaviness above the orbit are present; also loss of sleep, fever, and pulsation—the Eye stands forward, nor can it be covered altogether by the palpebræ, which are prevented from closing, and are also turned outward.—The venereal chemosis is accompanied by the same symptoms, with this difference, that in that the conjunctiva appears very greatly swelled, hard and fleshy, and a thick acrid, yellow matter, altogether like that of the gonorrhic humor drops from innumerable points.—The cure is to be taken from St. YVES and ASTRUC. See also Ophthalmia chemosis,

SECTION

SECTION THE FOURTH.

THE CORNEA, OR HORNY MEMBRANE.

§. I.

1. *Ophthalmia ab elcomate.* MAUCHARTII
de Ulcere Cornea, Dissertat. 1742. L.

ELCOMATIC, or ULCEROUS OPHTHALMY.

THE Varieties of Ulcers are several.

1. *ARGEMA*, argemous, or silvery.
An ulcer in some part of the external circle
of the Cornea, about the breadth of half a
line, with a redness of the tunica conjunc-
tiva, but with a whiteness of the Cornea.

2. *BOTRION*, botrionic, is a small
ulcer of the Cornea hollow, straight, clean,
without purulent, or thick, scaly sores,
equal to the head of a pin; if it should be in
the internal lamina of the Cornea, it creates
gerontoxon, a staphiloma succeeds.

3. *EPICAUMA*, epicaumal, an external
ulcer very often in the middle of the Cornea,
foul, soiled, hot, or burning, ash-colored,
sometimes

sometimes like flocks of wool, not so deep as an encauma.

4. *EUCAU^MA*, encaumal, a very ardent ulcer of the Cornea, thick, or scaly sordid, and difficult to cicatrize.

5. *CÆLOMA*, cælomatic, a hollow, round ulcer, broader, but not so deep as the botrion, residing in that region of the Cornea which is nearest the iris.

6. *ELCIDRION*, elcidrionic, a superficial ulceration of the Cornea made by a certain, clear, sudden fluxion.

The causes of Ophthalmia, are wounds, contusions, phlyctenæ, epiphora, Ophthalmia, staphiloma, acrid collyriums, variolous pustules, in cachectic, scrophulous, and syphilitic habits ; after feeding on acrid food, the use of telescopes, studying much by candle-light, a trichiasis, Ophthalmia, inability of bearing the light, clouded vision, and sensation of sand in the Eye, are apt to come on.

The indications are first, to prevent the afflux of humors, things which are not natural being taken from the Eye ;—here bleeding, cathartics, and depuration of the blood

blood are necessary.—2dly. To clean the ulcer with the lapis divinus (see page 63.) of St. Yves, for which purpose it is in high estimation.

Acrid saline matters are corrected by tutty, chalk, gum arabic, mucilage, marsh mallow roots, milk, white of egg :—Abstersion is performed by frequent ablution with the decoction of wormwood, St. Johns wort, lime-water, ointment of tutty, or powdered sugar, florentine orrice root, aloes and os saepiæ.—3dly. Consolidation of ulcers requires bland, mild food, decoction of agrimony, male speedwell, comfrey, St. John's wort; collyria of chalk, pompholix, bole armenian, myrrh, mastic, oil of eggs, white of eggs—Infuse in Spanish wine, cloves, aloes, crocus metallorum, camphire, and tutty, the dose; a small drop instilled into the Eye three times a day will be sufficient.

From the minute division of these ulcers, as they are only descriptive of the appearances; there probably may not be derived any practical utility, as the degrees of difficulty in the cure, and

and inconvenience afterwards, will arise only in proportion to their depth and extent.—But it is generally allowed that all ulcers of the Cornea and conjunctiva, tho' they originate from different causes, as wounds, burns, scrophula, lues venerea, &c. still they often happen from inflammation; in all cases of Ophthalmia the inflammation should be taken off as soon as possible to prevent this effect, and indeed when there are ulcerations nothing can be done in order to heal them before it is removed.

Before ulcers are formed, emollient applications may be of service; but afterwards, or when ulcers remain unattended with inflammatory appearances, they certainly do harm.—The chief object will be to clean the ulcers if foul, and hasten their healing by astringent applications.—Red precipitate, white vitriol, in thin liniments, or washes with white vitriol, and corrosive sublimate have been advised, but preparations of verdigrise seems to answer every purpose, and afterwards astringent lotions of alum and oak bark. If fungous excrescences arise, small ones may be subdued with escharotics, the best of which is lapis infernalis; if large, the knife may be safely used in the hands of a skilful surgeon. During my attendance at the Medical Asylum, the good effects of the aqua sapphirina in these cases hath often been manifested in scrophulous patients;

patients. A boy of nine years of age, of a scrophulous habit, had an ulcer in the Cornea, attended with a strong inflammation, the glands in his neck were much enlarged, his upper lip, and alæ nasi much swelled, his abdomen tumid, his pulse extremely quick, and febrile heat and thirst generally increased towards evening. The primæ viæ were first cleared by repeated doses of sal. polychresticus and rhubarb—The inflammation subdued by local bleeding with sedative fomentations, cataplasms, and the use of tinctura thebaica ; taking at the same time small doses of hemlock and calomel, with a decoction of bark, and afterwards aq. sapphirina being dropt into the Eye twice a day, the corneal ulcer became perfectly healed, notwithstanding his other scrophulous appearances did not give way to the general mode of treatment.----By the use of tinctura thebaica, and afterwards the application of aqua sapphirina, a boy, a patient of Mr. Freaes in Tottenham-Court-Road, who had a large corneal ulcer after the small-pox, was perfectly cured ; purgatives only being administered occasionally---Indeed so often has the good effect of this mode appeared to me, that I am persuaded in all common cases it will be found sufficient, where there is no idiosyncrasy in the constitution, which may prevent the natural action of these applications.

PLENCK divides this complaint, arising in the surface of the Cornea from venereal virus, into two Species.

1. AN ULCER OF THE EYE FROM VENEREAL VIRUS.

As from a gonorrhoeic, or syphilitic Ophthalmia having preceded, or being present ; which he cures by the internal use of his mercurial gummous pill, and by the external application of his ophthalmic balsam, and a dilute solution of corrosive sublimate with honey of roses.

2. AN ULCER FROM A LATENT, OR UNIVERSAL LUES.

In each case ulcers of the Cornea sometimes appear, to which he applies the remedies before described.

2. *Ophthalmia a Fistula corneæ.*—Dr. MAU-CHARTII Dissert. de Corneæ Fistula.

OPHTHALMY from a CORNEAL FISTULA.

This is visible to the sight, by a foramen perforating the Cornea in a line either directly or sinuously with callous edges ; by a subsiding of the Eye, because of the continued efflux of the aqueous humor ; an obscurity of sight, and redness of the Eyes from the falling in of pus.

This is cured by a chirurgical operation ; take rose water in which a piece of heated tutty has been extinguished, let a pledge be soaked in this liquor, with which let the Eye be fomented. A blister should be applied to the back ; the sound Eye bound up for some days, the patient should use ptisan for those days, and lie in a supine posture.--- Thus the Eye will be filled with the aqueous humor ; a needle cutting at both edges should be turned round within the fistula, to destroy the callous edges, and to renew the wound, i. e. make it a recent one. A small drop of balsam should be dropt into it, and the Eye bound down.

3. Ophthalmia ab Ungue.--MAUCHARTII. A.

UNGUEOUS, OR NAIL-LIKE OPHTHALMY.

This is an abscess between the lamellæ of the Cornea.

It begins with a chemosis, which is attended with severe acute head-ach, watchings, a weight above the orbit ; fever, pulsation, and caligo, on account of the fever and head-ach it differs from the leucoma.

The

The speck appears rather round, white, eminent, if the pus lodges under the epidermis of the Cornea ; in which case the disease is of trifling moment---but if it should be formed amongst the deeper seated lamellæ of the Cornea, its nature is more severe and dangerous ; if in the albuginea the tumor alone is the indication of its presence.

The paracentesis, or eduction of pus by the lancet is here required---but the pus is often poured into the chamber of the Eye, hence the hypopygium of MAUCHARTIUS.— See caligo hypoæma.

CULLEN arranges under the symptomatic Ophthalmia, from a disease of the Eye itself, these three Species.

§. 2.

LEUCOMA.

LEUCOMY, OR CORNEAL SPECK.

This is a spot or speck of the Cornea, where that membrane grows either white, yellowish, or loses its transparency ; and this arises from the fluids, losing their natural specific gravity ; hence comes on an opacity, which, according to the thickness of the

Iamellæ of the Cornea, sometimes reflects all the rays confused, hence its whiteness; sometimes transmits only a few, hence its grey color, similar to that of a cloud.

4. *Leucoma nephelium*. — Nebula, with the Latins; Achlys and Ægys, of the Greeks; amongst the French, Ombrage, Nuage. L.

NEBULOUS, OR CLOUDY CORNEAL SPECK.

This is a speck of the Cornea somewhat pellucid, which occasions objects to appear, as if seen through smoke, or a cloud, and hence are more obscured. By inspection obliquely it is discovered to be different from the opacity of the aqueous humor accompanying diseases called Mydriasis, Cataraæta lactea rupta---Cataraætum crystallinum. It is divided into Achlys and Ægis, according to the degree of obscurity. It differs from an Albugo inasmuch as an Albugo is altogether opaque----white, of the color of chalk, and sometimes a little eminent.

This Species often arises from a variolous Ophthalmmy, or moist one; also from too great

great heat, as burning. The Cornea is rendered opaque by acid spirits, as vitriol or nitre poured on it ; also by alkalines, as oil of tartar ; by the more acrid collyriums, yet not by spirit of wine, which renders the unguarded lymph opaque.

The nephelium is excited by art, and is useful in mydriasis, where there is an internal Ophthalmmy, where the rays of light are to be driven back least they should offend the retina.

The nephelium is much more easily cured than the albigo, by similar, though milder remedies being applied. In infants, as their years increase, it often vanishes spontaneously. The juice of pimpernel, either the blue or purple, dropt into the Eye twice a day, for the space of a week ; the juice of the common star thistle, and blue bottle, are useful ; sugar-candy powdered is often sufficient ; emetic wine, which is the least hurtful, may, with advantage, be dropt into the Eye ; the vapor of aniseed or fennel seed water are also of service.

5. *Leucoma Albugo.* By the French called, Tache blanche; if it shines, by the Latins, Margaritta; by the Greeks, Paralampsis; amongst the French, Perle. L.

ALBUGINOUS, or PEARLY CORNEAL SPECK.

This Macula, or Speck, is altogether opaque, white, of a cretaceous color, and sometimes a little prominent. It is distinguished into Albugo, which is red round its margin, painful, and therefore inflamed; and into that Albugo, which is rather eminent, of the color of chalk, and free from inflammation.

It follows the principles of nephelium, but they are more violent, as Ophthalmia, chemosis, hypophthalmia, burning from lime, &c. It brings on a most obscure Caligo: when it covers the middle of the *Cornea* it is thick, and very white; it is seldom cured if of long standing—and care must be taken not to confound it with the onyx, cataract, hypopyon, or empyesis.

It is cured, according to St. Yves, by beginning with the inflammation which accompanies it.

Some

Some will have the common leucoma pared, which is only proper in a pannus ; but in a leucoma attended with much moisture, fumigations of aloes, myrrh, mastick, and juniper berries, thrown upon burning coals, and the tepid smoke conveyed to the Eye by a proper funnel, are advised to be repeated ; or, which is safer, and recommended by MAUCHARTIUS, are the vapors of these medicines in decoction : also of hyssop, mother of thyme, origanum, rosemary, coffee, valerian, fennel seeds boiled with a little camphire in wine or water, also a collyrium or lotion, prepared from this decoction is safer.

The dry collyria are made of tutty, calcined oyster shells, scuttlefish bone, florentine orrice, whitest agaric, the tartar of chamber-pots, in very subtle powder ; the more acrid are fish, or bull's gall, viper's fat, crocus metallorum reduced to an impalpable powder, oil of box-wood, or paper, which may be sweetened with a mixture of honey ; verdigrise is condemned ; but the weakest solution of these in a large quantity of water is often used ; and by the same rule the juice

of eye-bright, and the greater celandine may be applied. BOERHAAVE prescribed the repeated use of calomel and cathartics, to dissolve the lymph and free the Cornea from leucoma.

6. *Leucoma Cicatrix*.---By the Greeks called Oule ; by the French, Cicatrice.

CORNEAL SPECK, from a CICATRIX or SCAR.

This arises from the healing of a wound, ulcer, or abscess of the Cornea ; a simple wound seldom leaves any traces of a cicatrix. Those which succeed to a wound, commonly disappear spontaneously, as may be seen in those who have undergone the operation of extraction of the cataract by the circular incision of the *Cornea* ; but it is much otherwise in an ulcer and onyx ; for on account of the preceding inflammation and acrimony of the pus, an obstinate and troublesome white speck arises.

The cure should be attempted, which tho' is rarely successful, by the same remedies as in the albugo ; but a cicatrix of the Cornea threa-

threatening to commence from the small-pox may be prevented, if an infusion of saffron with a little camphire be dropt every day into the Eyes.

7. *Leucoma Gerontoxon.*

SENIL-ARCUATED CORNEAL SPECK.

This is a circular speck, for the most part, very white, and often apparent in the circumference of the *Cornea*, and therefore the least hurtful to vision, in whose centre is a little pellucid circle; it derives its origin from a pustule in the lower laminæ of the Cornea, ruptured within, whose periphery is opaque; such a one SAUVAGES has seen, and such is often the cause of the ceratocele, or hernia of the Cornea.—This Species is esteemed incurable.

MEAD, in speaking of the albugo, advises glass very finely powdered, to which is added an equal quantity of sugar-candy, and levigated to an impalpable powder, to be put into the Eye every day; this, he says, absterses, and wears off the spot by its inciding quality; or having it
pared

pared by a skilful surgeon every day ; several instances he has seen of its being cured by the first method, only one or two by the last.

Mr. BELL, after giving his opinion of the cause of leucomata, which he considers as almost always arising from inflammation, divides them into two Species ;—One of which appears prominent above the cornea, and requires external applications for the cure ; the other is attended with no such phœnomenon, but seems diffused within the lamina of that membrane, making, as it were, a part of the Eye. In the last Species, external remedies are of no use, except in case of an attendant Ophthalmia ; a gentle but long continued mercurial course he considers as proper, with smart purgatives occasionally administered to promote absorption, and a seton in the neck. In the former he presses the use of the knife ; but as that may not always be permitted, he has recourse to escharotics, the inflammation first taken off, should there be any. What he recommends is red precipitate, or verdigrise finely levigated, mixed with three or four parts of fine sugar ; calcined alum and white vitriol, united with a proper proportion of sugar, or with egg shells in fine powder.

Or the same formed into thin ointments with hog's lard, or washes of a solution of verdigrise, or white vitriol, or corrosive sublimate much diluted.

The

The application of the powder or ointment, he advises night and morning, and the lotions to be used two or three times a day, at the same time ; and these by a prudent and long continued use, are likely to become successful. See his *Surgery*, Vol. III.

PLENCK, of the VENEREAL SPECK OF THE CORNEA, says,

It is an alteration of color in the Cornea from venereal virus.—Sometimes a part only of the Cornea, sometimes the whole Cornea is obscured. He divides this into two species.

1. A SPECK OF THE EYE FROM THE VENEREAL DISEASE PRECEDING ; AS SUCCEEDING TO A SYPHILITIC OPHTHALMY, LIPPITUDE, OR ULCER.

The cure requires internally the use of the mercurial gummosous pill ; externally the speck, or obscured Cornea, should be touched twice a day, by means of a small hair pencil, with a solution of corrosive sublimate ; afterwards of his red ophthalmic ointment, a portion as large as a lintel should be applied three times a day.

2d. A SPECK ON THE CORNEA OF NEW-BORN INFANTS FROM A LATENT LUES.

Infants newly born, whose mothers had been afflicted with the venereal leucorrhæa, are often attacked with cloudiness of the cornea, and atrophy of the Eye.

The

The same medicines for the cure are recommended as in the former Species, which tried in the beginning of the disease, are often serviceable.—See *Caligo venerea*.

It should have been observed, that the leucomatæ often affect the membrana albuginea, but seldom are of consequence enough to require any assistance; and indeed when small, upon the cornea, and not detrimental to vision, it is better to avoid any applications to them, for fear of bringing on disagreeable consequences.

§. 3.

CALIGO.—Obscurcissement de la Vüë.

A CALIGO, or PARTIAL, or TOTAL OBSCURITY OF VISION.

This is a disease whose principal symptom is a partial diminution, or total obstruction of Vision, from some opaque obstacle in the Eye, placed before the pupil.

In an amblyopy and amaurosy there is no opacity. In a cataract the opacity is beyond the pupil.

The obstacles intercepting the sight in a Caligo, are either diseases of what are contained

tained in the anterior chamber of the Eye, or of the parts containing them, as of the Cornea, Eye-lids.

Many things are necessary to produce distinct vision ; First, that the rays issued from the object to be seen should pass through the Eye as far as the retina, which obstructing bodies prevent. Secondly, that the terminations of the rays of light emitted from the same point of the object should unite in the same point, not in the different points of the retina, not beyond or before the retina, as often happens in an amblyopia. Thirdly, that both Eyes should act together, and direct their optic axis to the same point of the object, which is looked at, which cannot happen in squinting, and is very difficult in some species of Caligo ; therefore a Caligo is hurtful to vision, and to the view of objects—for that is a direction of both the optic axis towards the object to be seen.

Opacity is that disposition of bodies, by which it happens that they either must reflect all the rays, from whence the whitest bodies are opaque ; or that they may absorb the rays, and not transmit them, whence bodies

bodies formed of lamellæ separately pellucid, if they should become thicker, scarce preserve their transparency.

Opacity depends upon the repeated refractions of the rays into different plagæ, or broad expansions, and these reiterated refractions happen as often as the substance or laminæ of which bodies are composed are heterogeneous, or of a different specific gravity, as NEWTON demonstrates.

The Cornea is divided into a greater number of lamellæ, in proportion to the greater industry of the anatomist ; it is very probable that the lymphatic fluid, with which it is imbued, may be of the same specific gravity with its lamellæ ; but if from the action of increased heat the lymph should become a little more rare, the solid part not becoming rare in an equal degree, opacity will be the consequence ; and that opacity will be greater in proportion as the spot is more white, and the membrane more thickened.

Those who labor under a Caligo, see more obscurely in a weaker light, than that which is more strong : for by how much greater

greater is the brightness by so much greater is the number of the rays of light ; and therefore since from a greater number of the rays striking the Cornea, more of them enter the interior parts of the Eye, than when the number is less, it may happen that those who cannot see in a weak light, may, in a stronger, see sufficiently ; and therefore that a caliginous man may be a hemeralops, as he may require meridian light for vision, and may become blind in twilight.

If a speck, or obstacle obstructing the light, should be placed in the direction of the pupil, then the patient will only see objects laterally, situated towards either angle of the Eye, because the edges of the palpebræ in each angle recede more from the pupil, than either above or below ; therefore, by this aperture the rays may have access to the Eye, when scarce any can have access to that organ in its superior or inferior part ; if in like manner there shall be an opaque spot from one or other of the angles of the Eye, the axis of either Eye will not be able to be directed towards that place as much as is necessary

cessary for a proper view; hence squinting will arise.

CULLEN arranges this under his class *Locales*, and order *Dysæsthesiæ*—Sensations depraved or obliterated from a defect of the external organs.

8. *Caligo a Leucomate.* Tache de la Cornée.
Taye. L.

CALIGO from a CORNEAL SPECK.

This is a spot often white, and at least pellucid, in the *Cornea*, whence it differs from *Nephelium*.—

It is called *Paralampsis*, or *Margareta*—a speck, whitish-blue, thick, opaque, and shining.

The *Albugo* is properly a *Leucoma*, if white, prominent, of the color of chalk, inflamed often at the margin, and painful.

Gerontoxon MAUCHARTII, seu *Arcus senilis*, is a white, or brown speck, arcuated in the edge of the Cornea, common to old men, but scarce detrimental to the sight.

Oule,

Oule, or Cicatrix, is a spot of the Cornea from a cicatrix.

Albugo of D. St. YVES, is an Ophthalmmy.

The glaucoſis of Ætius is a white opaque spot of the whole Cornea without inflammation.

This differs from exulceration, from its want of cavity, pus, severe pain, &c.

If there should be pain, heat, dryness, bleeding being premised, emollient fomentations, anodynes of saffron, white of egg, &c. are useful.

In leucoma attended with much humidity, fumigations of myrrh, aloes, juniper berries, cast upon burning coals, the smoke conveyed to the Eye from some distance, then the Ung. e Tutiâ è Gum Arabico may be of advantage.

Licking with the tongue, aniseeds, fennel seeds, and sugar first chewed, to which a little vitriol is added, is recommended.

Vapors from hyſſop, chervil, greater celandine, mother of thyme, origanum, roſe-water, juniper berries, coffee, valerian, maf-tick, camphire boiled in water, wine, aqua

Calcis, or an ophthalmic lotion ; with a decoction of these, the Eye may be washed.

Dry collyria are of sugar, egg-shells calcined, scuttle-fish bone, Florentine orrice, white agaric, the fur of chamber-pots reduced to powder.

Acrids are camphire, fish or bull's gall, viper's fat, crocus metallorum, juice of celandine, or oil of box-wood, paper, or linen, mixed with honey—but pure vitriol, verdigrise, and alum, must be avoided.

BOERHAAVE gave repeated cathartics of calomel and diagrydium aa gr. vj., to be taken in pap-meat, to an infant.

9. *Caligo à Nephelio*.—Nuage de la Cornée.

L.

CALIGO from CORNEAL OPACITY.

A subpellucid speck in the *Cornea* is by the Latins called Nebula ; by the Greeks, Nephelium ; Achlys, and Ægis—the differences of which may be seen in MAUCHARTIUS de macul. Corneæ dissertatio.

If the cloud depends upon a small drop of water collected between the lamellæ of the Cornea,

Cornea, it may be distinguished by the assistance of a good magnifying glass, and may be evacuated by the puncture of a needle; that cloud is called aquula—*hydatis*.

If from opaque lymph, as happens after the small-pox, Ophthalmia, that speck is in time spontaneously resolved; or by the use of powdered sugar; tutty reduced to powder as fine as flour, a little vitriol being added, or with fennel water, the expressed juice of pimpernel, emetic wine, &c. or the remedies for leucoma.

Two cases of glauco-sis are recited by VAN SWIETEN, cured by the use of corrosive sublimate; in one the Cornea had been opaque for many years, and became perfectly pellucid, in the other both the Cornea of the Eyes were entirely opaque from an Ophthalmia badly cured, and also each of the crystalline lentes had more opacity than natural; he continued the use of corrosive sublimate for eighteen months with the most fortunate success; when the inflammation of the Eyes now and then returned, he prescribed bleeding, baths, and purgatives for a week or two, omitting the use of the sublimate, and continually fomented the Eyes with a collyrium made of sp. of sal ammoniac perfectly

saturated with distilled rose water ; he also adds, that the constitution can bear this remedy for a long time without any injury ; for the youth, who made use of it in the second case, enjoyed uninterrupted health, nor was there even the least suspicion of his being affected with the lues venerea—Med. Obser. London.

An opacity of the Cornea and muddiness of the humors are spoken of in the same collection from the bite of a mad dog.

9. *Caligo a Ceratocele—Staphyloma, GUN-*
ZII *Dissertatio.*

CALIGO from a CORNEAL HERNIA

This Ceratocele, or corneal Hernia is a very small tumor of the Cornea, like the head of a pin, which examined in a right line is pellucid in the middle, but appears rather obscure and roundish ; examined obliquely it is opaque, and resembles a small ring opaque in its periphery.—It arises from an erosion or ulceration of a punctum in the interior tunic of the Cornea, whence the external lamina pressed out by the aqueous humor becomes a little prominent.

This

This is cured by topical astringents, or pressure from a plate of thin lead.

10. *Caligo venerea*.—Quelmate Panegyris.
1750. L.

VENEREAL CALIGO.

This is a blindness of new-born infants, whose mother has been afflicted with the Gonorrhœa virulenta.—This is a Caligo with atrophy of the Eye, and obliteration of the Cornea.—I saw many of these offered to the celebrated TAYLOR, and all of them incurable.

Locker says—The albugo—pannus; opacity of the Cornea, and venereal cataract, now and then disappear from the use of the antivenereal spirit.—In these he applied soap in the ophthalmic water, with a little honey of roses ; or, in cases of great opacity, mercurius dulcis with sugar is sprinkled upon them twice a day.—See the Note upon Leucoma, &c. PLENCK, Species 2d.

11. *Caligo a Rhytidoti.*—MAUCHARTII ; 2
Defectu Humoris aquei. Praxis. L.

CALIGO from CORNEAL CORRUGATION.

This is a subsiding, or corrugation of the Cornea—A wound being made through the Cornea, the aqueous humor flows out, but is renewed within a day.—In a fistula it spontaneously passes off continually, when the Cornea grows yellow, and undulated, hence less pellucid. Sometimes it happens not from accident, or external injuries, as in old age, and then it is incurable ; sometimes it is exhausted, as in the tritæophya, or continued quartan, caufus, or other acute fevers—and then the fever being cured the Caligo disappears.

If it depends on dryness and heat, it is cured by emollient fomentations, by bathing the Eye, or ophthalmic lotions.

§. 4.

AMBLYOPIA.—Visus debilis. *ÆTII;*
*Visūs Hebetudo, BoER HAAVE de Morbis
 Oculorum; Ambliopie, Vuë confuse;
 Foibleſſe de la Vuë.*

AMBLYOPY—DEBILITY of SIGHT, ABSOLUTE or RELATIVE, with OCULAR OPACITY.

A disease, the principal symptom of which is, a debility of sight, either absolute, or relative, without any opacity of the Cornea, or interior part of the Eye.

An obscurity, or confusion of vision is called relative, when an object cannot be seen at its usual distances, situations, and in a common light, but only in some. Thus myopic, or short-sighted men see objects placed at a distance confusedly ; those very near, distinctly :—therefore they are amblyopic with respect to distant objects.

Clear vision, is that degree which is sufficient for discovering the whole object, and distinguishing it from others—Obscure, that which is not adequate to these purposes.

Distinct vision, is that which is capable of knowing and distinguishing the parts of objects, and the particles of those parts ;—the contrary, is confused.—If in a beginning cataract, any one should see this paper in such a manner that it can be distinguished from any other paper, or from the table, and known by the person that it is paper, he sees it clearly—but if he cannot distinguish the black lines written upon it, or knows not the characters which are parts of those lines, or the component parts of each character ; nor can distinguish one letter, except on account of the place which it occupies, from another, he has a clear but confused vision—but he who knows and can distinguish many, and the smaller parts as well of lines as letters, and their particles, he has a distinct vision, and so much the more distinct is that vision, by how much greater is the distance from the Eyes, and smaller the particles which he distinguishes by a weaker light.

The Horopter, or limits of distinct vision, are four or five inches for near objects ; fourteen feet for remote objects of that magnitude

tude which is generally bestowed on large letters ;—by how much larger are the objects, and brighter the light, by so much greater is the distance at which they may be seen.

The Amblyopia differs from an Amaurosis; because in the latter the sight is lost altogether, and the pupil becomes immoveable; but if one Eye be perfect, the pupil of the blind Eye will move with that of the sound one ;—but the healthful Eye being closed, the pupil of the blind Eye loses all motion.

Besides, in relative Amblyopia, the Eye sees objects clearly and distinctly under certain circumstances, as myopic, or short-sighted men, see things which are situated close to them ; in an Amaurosis not any thing is perceived.

The cause of the Amblyopia is the confusion of the image painted upon the retina—but the confusion is present in the image, as often as the fasciculi of the rays coming from one point of the object are not united together in one on the retina, and in the same point, but in different points ; or when many fasciculi from different points of the objects

objects send out their rays together into one point of the image—such a confusion takes place in myopia and presbytia.

A confusion also arises from obscurity as in amblyopia, for seeing that no image can be distinct, unless it is clear, every obscure image is necessarily confused. It is obscure as often as there is not a sufficient clearness, or a proper quantity of rays on account of the confusion of the Eyes, or their force not strong enough upon the retina, because of the diminished sensibility of that membrane.

CULLEN arranges this with Caligo, which see.

12. *Amblyopia diffitorum*; Myopia, Vifum Juvenum; PLATERI; among the French Vuë. Courte, Myopie.

PRESBYTAL, or LONG-SIGHTED AMBLYOPY.

They are called Myopes who see things at a distance confusedly ; but near objects distinctly. It is called Myopia, as having a sight like a mouse.

They

They are most subject to this disease, who examine minute objects—as goldsmiths, watch-makers, engravers, miniature painters, whose cornea is very convex; or in respect to the globe of the Eye, is the part of a much less sphere.

The cause of this is the conjunction of the rays of light before they reach the retina, or a coition or union of the rays behind the crystalline lens.

Therefore they unite behind the lens before they reach the retina—either first, because the refractive power of the aqueous or crystalline humor is greater; or, secondly, because the surface of the cornea and crystalline lens are too convex; or, thirdly, the retina is removed too far from the lens; or, fourthly, the object is too far removed; or, fifthly, because the pupil is too open, or rather, to speak more properly,—a myopia is in a compound ratio of the following conditions; viz. of the refractive power of the aqueous, and crystalline humor; of the distance of the cornea and crystalline lens from the retina; of the distance of objects, and lastly of the aperture of the pupil.

The

The curative indication is, one palliative, the other radical.—The palliative respects the cause of the disease, the radical the principle.—Whatever may be the principle is often unknown.—The cause is the union of the rays of light before they strike the retina ;—the remedy therefore is to retard their coition before they reach that membrane.—Experience teaches, and dioptrics demonstrate to us, that a glass, one side concave, or both sides, held to the Eye, the rays proceeding from distant objects, and thence mutually parallel to each other, fall upon the Eye mutually diverging ; but at that time they fall, spread abroad as such distances as from near objects, in which case we find from experience the focus diverges ; therefore if glasses of a concavity, proportionate to the proper distance from the Eye, be applied, the rays of remote objects falling upon the Eye will be united on the retina itself ; inasmuch, as distant objects will be seen distinctly.

The antecedent principle of a myopy is, first,—A convexity of the Cornea, or a convexity of one or both the surfaces of the crystalline

crystalline lens—which last diseases afford no certain symptom of their presence, but the convexity of the Cornea ; besides, that it is often confounded with a prominence of the Eye, is not a certain sign, so long as the respective situation of the retina is unknown —but it cannot be known by any means ;—therefore, from these principia no certain indications can be taken, nor can any remedy be exhibited :—for as it is possible that the disease may depend on this principle alone, so is it possible that it may depend on others, which require various, nay, sometimes remedies of opposite powers ;—therefore in an uncertain state of things, as the danger of hurting may be adequate to the hope of assisting, it is better to avoid exhibiting any medicine pointed out by this principle.

Another antecedent principle of this myopia, is a spasmodic contraction, or even a contracture * of the oblique muscles of the Eye ; nay, near some of the recti them-

* Immobility coming on gradually from the rigidity of the parts, or at least remaining constant.

felves ;

selves ; which some suppose to be the antagonists of the oblique ; but it is very justly doubted whether a constant myopy can depend upon such a principle, or whether upon either of these :—however, emollient fomentations, anodynes are scarce of any use—therefore the only hope is from the prophylactic remedy ;—let the same be said of the opinion of the celebrated DE CHALES, POTTERFIELD, PEMBERTON, and others.

If the principles marked by these should require emollients and relaxants ; from another cause, there is fear least these medicines, should they answer any purpose, the retina might be relaxed, and thus the sight be rendered more obscure ; it would therefore be more satisfactory to refrain from their use.

The particular mode of cure, requires, first, that the degree of the disease may be accurately known ; secondly, That a glass of proper concavity agreeing with this may be acquired, for medical art would not be of any service, unless dioptrics lent their aid.

The symptoms of myopy, although the disease appears to be the most simple, are numerous;

numerous ; so that it is generally known by the gesture, countenance, and act of writing. Thus myopic, or short-sighted men, not only move any thing they read close to their nose, but look at it with eyes awry, and with one eye, to which the paper is nearest. They therefore like small characters, as well in writing as reading, that they may not move the head continually in following the lines. They require also a weak light for their pupils are wide ; their vision is dark, or confused, in viewing objects above a foot's distance, which, as they may be much more numerous than what are nearer, therefore the pupil accustoms itself to this dilation, from which it cannot desist.

If myopic men look through a small perforation in paper, they see remote objects more distinctly ; winking the Eye-lids gives commonly the same advantage, whence, in order to see remote objects, they almost close the palpebræ, not without a remarkable distortion of face. Besides, myopic men look not at those with whom they are conversing, and indeed they would look in vain, for they cannot from the eyes, or face,

or

or nod, of their associates, with whom they hold converse, conceive more clearly or fully what is said, as the ætoptes can.—But what on this subject wants to be understood, when the Eyes look downwards, challenges greater attention ; because they see not things standing around them, running against objects opposite to them they hurt themselves;—also they oftener see objects multiplied, as we shall see when speaking of suffusion—when in the night they look at candles far removed, they seem to perceive a large circular flame, not conical, and many other things are recited by the learned DE CHALES.

But amongst these symptoms there is one from whence the best judgment may be formed of myopy, or short-sightedness ; when a man through a double foramen in paper sees two flames of a candle, if the finger is moved to the right eye, and the right image of the flame vanishes, the man is myopic ; if the left, he labours under that Species termed presbyta.

13. *Amblyopia proximorum*.—Presbytia, aut Presbyopia vulgaris; from the Greek, Presbys. SENEX; amongst the Latins, Visus senilis; amongst the French, Vue longue. L.

MYOPIC, OR SHORT-SIGHTED AMBLYOPIA.

This is that Species of vision, by which men see things contiguous confusedly—but remote objects more distinctly.

As old women in threading a needle, remove the thread and needle at a great distance—so old men place their books above eight inches from their Eyes, that they may read more distinctly.

From the preceding theory this is readily intelligible.—The cause is a later conjunction of the rays coming from near objects, which conjunction is formed beyond the retina.

The principia are, 1st. from a smaller convexity of the Cornea, and each or both superficies of the crystalline lens, so that this curvature is a portion of a larger sphere.—Secondly, too great a distance of the Cornea, or crystalline lens, or both, from the retina.—

M

Thirdly,

Thirdly, the refractive power of the pellucid bodies of the Eye less than usual.—Fourthly, too great a proximity of objects.—Fifthly, a straitness of the pupil, which the Greeks call phthisis.

It happens from the concourse of each, and a more powerful one of all these principles conjunctively, that the rays proceeding from near objects, must be united more slowly, and push their focus beyond the retina, from whence the vision cannot be distinct; —for the luminous pyramid is cut off by the retina, the rays not yet collected into a conical apex; therefore every point of the object paints a spot upon the retina, not otherwise than with myopic men—with this only difference, that the speck arises from the rays not having yet coalesced; in myopics having already coalesced, and again expanded.---Men who are most afflicted with the presbyta, see objects distinctly at the distance of three feet, and those which are nearer confusedly.—Those who are afflicted in a smaller degree, place the books which they read at a foot's, or at least beyond eight inches distance.—If objects should be situated beyond

beyond the distance of their distinct vision, the presbytæ cannot distinguish them, for it is not sufficient for the objects being distinctly seen, that the rays emitted from them should exactly unite upon the retina, because amongst the presbytæ it happens from objects even far removed—but it is required that the quantity of rays issuing from the object should be so much the greater by how much the sensibility of the retina is less.— But in old men the sensibility of the retina is a little less than among younger—and if objects should be placed too far off, they send a lesser number of rays into the Eye, therefore not sufficient for clear vision.— The beams which irradiate from objects upon a given surface, are so much the fewer, by how much the square of the distance of the object is greater: thus from two or three feet, four times; and nine times fewer rays are emitted than from one foot; so from four feet the same object sends a number of rays less almost by half, than from the distance of three.

If the straitness of the pupil should be the principle of prebyopia, as it frequently hap-

pens, they receive a smaller share of rays from objects in proportion as the square of the diameter of the pupil is less ; so that if the diameter of the pupil should be less in a double ratio, and at the same time the distance of the object should in the same degree be greater, the number of the rays entering the pupil will be sixteen times less. Therefore they are forced to remove objects to a certain distance, not beyond, in order to prevent vision from becoming obscure—not within, lest the rays should unite more beyond the retina, and then they would see confusedly. Inasmuch as presbytæ see only by rays parallel, or converging, falling upon the cornea, not in the least by those which diverge ; but by how much nearer the object is to the Eye, by so much more do the rays become diverging, and at the same time copious ; for this reason, because the rays from proximate objects enter the Eye in greater crowds, than from remote ones : therefore the clearness of the image does not increase, at least in the same proportion ; for in that proportion in which the object is nearer, in the same proportion the image diffused thro'

the

the circle of the retina, becomes larger :— therefore from thence has a greater number of parts to be illuminated ; but not from thence are all the points more illuminated— because should the object be nearer, the focus is removed too far beyond the retina, therefore vision becomes more confused.

Presbytæ, therefore, that they may see objects distinctly, want a great light ; on the contrary, myopics require a weak light, that they may read ; forasmuch as the presbytæ have the retina more rigid from age, the pupil straiter, objects more remote, all which diminish clearness of vision ; therefore these defects ought to be compensated by a greater splendor, or illumination of the object.

If presbytæ would look at any very lucid object, viz. the flame of a candle through a hole in paper, that will appear to them enlarged—or as in the hair of the head radiated, and rather round—but that object is represented in the retina by a spot larger than the real image would be, if the focus should fall precisely upon the retina ; there-

fore the object must be seen enlarged.—Besides, as splendid objects, viz. white, appear larger upon an obscure basis, than black ones upon a white, as we know from experience; since a splendid object may be placed upon it, and the Eye become a camera obscura, again for that reason it will be seen of greater extent.

But now of the rays delineating the object, those which fall into the edge of the crystalline lens have the focus a little less removed than those which are parallel to the optic axis; therefore they delineate the object a little more vivid in the middle of the spot; the rest then appear more confusedly, and therefore resemble a circle more thin, by which the object is surrounded.

Concave glasses are most agreeable to the presbytæ, for they see remote objects distinctly—near ones confusedly.—Wherefore seeing that the convex lenses so refract the rays coming from a neighbouring point, as if they came from one at a distance, convex glasses are useful to presbytæ—but from a parity of reason, the more convex glasses assist those who are thus afflicted

in a greater degree—as their convexity is the portion of a smaller sphere.

But if, as it sometimes happens, the Presbyopia should originate from a visible fault of the Eye, and that a recent one, then remedies for a radical cure may be indicated from the foregoing theory.

14. *Amblyopia luscorum.*—Lusciositas, or Luscitas, BOERHAAVE; amongst the French, Vûë louche.

AMBLYOPY, from **LUSCITY**, or **OBLIQUE VISION.**

They are called Lusci who see objects brought directly before their eyes confusedly, but offered obliquely, distinctly.

In practice, Luscity is commonly confounded with Strabismus—but the strabones, or those who squint, see an object with one eye distinctly which is offered in a direct line before the eyes.—But the Lusci incline the face and eye itself, with which they look to either side, that they may see the object more distinctly. It is called direct vision when a line, extended from the object to the

face of the spectator is perpendicular to the plane joining both pupils, otherwise the sight is oblique. When we look at an object we always turn the face so towards it, that the sight may be direct, and we so direct both eyes together, that the optic axis may fall upon the middle of the object—but the Luscus, whilst he looks at an object, suppose to the right hand, he turns his eye and face to the left—a man who squints, called Strabo, indeed turns one eye and his face to the object which he beholds, but not the other eye, which wanders indiscriminately.

Direct vision is clearer than the oblique, because in direct vision a greater number of rays enter the pupil than in oblique, as proved by geometry. Also direct vision is more distinct, because through the means of the rays of the uvea being perpendicular, it will more easily conceive the distance, and magnitude of the object, than by being oblique; add, that in a sound state, the optic point, or the place of the retina, directly opposite the pupil, enjoys more nervous filaments, and more exquisite sensibility than the sides; and lastly, the rays falling obliquely upon the

the pupil have their focus more diffused in the sides of the retina, than those which pass directly to the optic point.

Whence it happens that in reading a book, we shall run over every word with our eyes; for we see more distinctly those which are offered to our eyes in a right line, but more confusedly those which are situated obliquely.

Luscit therefore happens, either, first, because the pupil is placed obliquely, so that it receives more oblique than direct rays; or, secondly, because the convexity of the Cornea is altered, or its transparency, so that more rays may be admitted from either side than if they should penetrate in direct lines; or, thirdly, because the crystalline lens is placed obliquely, and its axis not the same with that of the eye; or, fourthly, because the point is deprived of its natural sensibility, whence we are forced to direct the eyes elsewhere, that we may see more acutely.

From these principles, sometimes an Anchyloblepharon, or partial adhesion of the palpebræ, synechia, as well as transverse position of
the

pupil, which surgery alone can cure, may produce a Luscitv.—Various species of strabism often are combined with it; if it should happen from a leucoma covering part of the Eye, from a pannus, or pterygium, rendering the Cornea here and there opaque, remedies adapted to these affections are to be exhibited.

If Luscitv depends upon strabism, we must use *spectacles* whose glasses have unequal latitude—the glass should be straiter which is fixed before the eye that squints; 2dly, If a strabismus depends upon this, that either Eye is weaker, the glass more strongly refracting should answer to that which is weakest; 3dly, If from the fault of the muscles, *spectacles* commonly called Besicles, Masques à touchette, are to be used.

15. *Amblyopia hydrophthalmica*. Hydrophthalmia. Mydriasis with some; Hydropsie de l'œil. L.

HYDROPHTHALMIC AMBLYOPY.

This Amblyopy is joined with a protuberance of the Eye larger than usual.—In
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the beginning the vision is myopic, as near objects can be seen sufficiently well, remote ones confusedly ; but in the progress of the disease all things are perceived obscurely.

The volume of the Eye is larger, there is a turgid tension, a prominence of the Cornea, the iris lurks deep, the pupil is immoveable, sometimes broader, sometimes narrower ; the vision in the beginning is good, or myopic ; then more obscure, as in the amblyopia absoluta. The Cornea is often clouded, the aqueous humor turbid ; a continual tensive pain about the forehead, with an hemicrania of the same side, a stupor of half the face, and an emphysema of it, happen to some—also the tooth-ach, want of sleep, exophthalmus, epiphora, and extroversion of the palpebræ.

If the bulk of the vitreous humor has only encreased, the vitreous humor extubates on the crystalline lens, and creates an irregular, or occasional strabismus.—Vision is diminished, the bulb of the Eye is indurated, an obtuse pain, often a synechia happens, or a confusion of the whole contents of the Eye ; but

but the pupil is less deep, than if the aqueous humor was superabundant.

The principle is an afflux of the aqueous or vitreous humor exceeding absorption; and a contractility of the Cornea, and sclerotica.

The curative indications are—First, That the congestion of the fluid may be averted by blisters, setons, cathartics, and diuretics; the humor eliminated in time by a paracentesis of the Eye, by a needle pushed into the Cornea, or albuginea;—Secondly, By the contractile power of the bulb of the Eye being increased by tonics, and bags filled with aromatics.

This disease happens to melancholic people from some suppressed evacuation;— to gravid women also, which continues some months, then is often spontaneously cured.

It differs from an exophthalmus, concerning which see **Ophthalmia**.

§. 5.

16. *Strabismus a Luscitate.* BOERHAAVE de Morbis Oculi, 175; POTTERFIELD; Edinburgh Essays, Tom. 3. L.

STRABISM, or SQUINTING FROM OBLIQUE VISION.

He is called Luscus (looking askaunt, or aslant) who is forced to view objects with either Eye, not directly but obliquely, and with his Eyes a-wry, that he may see distinctly:—thus, therefore, if one Eye can only see obliquely, the other does not converge with it, hence a Strabismus. (See Amblyop. luscorum.)

This Luscity, or oblique vision, happens in the first place, because the middle of the retina has not its proper sensation, whence objects beheld in a right line, are seen obscurely, but, obliquely placed, distinctly.—Hence we are obliged to squint from the fault of the retina, which is cured as a paralytic amaurosy.—Secondly, On account of the altered convexity of the Cornea, the refracted rays of light do not extend to the middle

middle of the retina, but to one side or other, and that error can scarce be corrected by art.—Thirdly, If from a contusion the crystalline lens should be obliquely placed, the same error will be the consequence, nor is more remediable.—Fourthly, I saw a girl whose pupil was not apparent, except towards the great canthus of the Eye, from a leucoma on the Cornea, whence she squinted.—This fault may be cured by resolvents, as ox gall, myrrh—Potterfield Edinb. Essays, Tom. 3. Page 289. & 295.

SECTION THE FIFTH.

THE CHAMBERS OF THE EYE.

§. I.

- I. *Caligo hypocœma*.—MAUCHARTIUS de Hypopio.—Hypochyfis hæmatodes, of the Greeks.—Hypophthalmia. GALENI. B.

INTROCAMERAL SANGUINEOUS CALIGO.

THIS Species depends upon blood being poured within the chambers of the Eye.—Whether objects appear to them tinged red is very doubtful.

MAUCHARTIUS cured this by applying small bags of resolvent herbs, boiled in wine; then setting an issue with cautery in the arm; but bleeding must precede.

Though it is said to arise from various causes, it generally happens from external violence, if the portion is small, and vision is not hurt by it, there is no necessity for the interference of art, nor indeed can any thing be done when it

occurs

occurs from a dissolved state of the blood, in some case of putrescence ; but when this is not the case, and the afflux of blood should be so large as to impede the sight, an aperture should be made in the most depending part of the Cornea, and the blood evacuated.

2. *Caligo lactea*.—Observ. de HAGUENOT,
Ill. Prof. Medic. Monspel. B.

LACTEAL CALIGO.

Hypogala is a collection of milk in the foremost and middle chamber of the Eye, it is observed in women in child-bed, whose milk has receded.

This Caligo has an affinity with that which succeeds the operation of the lacteal, or purulent cataract, in which the matter sinking down, vision is restored.

In hypopyon * and empyesis pus is in both or either chamber, but on account of the

* Though SAUVAGES here mentions the hypopyon, he takes no notice of it further in his work with regard to the description, for we do not find it under

the excruciating pain which supervenes, it appears to belong to Ophthalmmy.

Agreeable to the form of the arrangement prescribed in this work, the aqueous humor should be here inserted; but as the diseases arising from any alteration of that fluid are generally combined with some affection of the vitreous humor, it hath been thought proper to class it under that section—which see.

under any of his Species of Ophthalmmy; but it is evident he means the disease as described by HEISTER, not by St. YVES; nor does Mr. BELL adhere to the description here meant, as he considers it an affection of some of the coats of the Eye, and not a collection of pus in the camera of the Eye. Instances of this hypopyon have been known cured by motion of the head agitated by the hands, or in carriages, and these as well as other means likely to produce resorption, ought therefore to be tried; if not successful, recourse must be had to incision thro' the Cornea to evacuate the matter.—Nor should that be deferred too long, least the Eye, by the Pus remaining, should be so injured, as to prove destructive to vision. See HEISTER's Surgery---And BELL's on the Operation for the Hypoæma.

N S E C T I O N

SECTION THE SIXTH.

THE UVEA, AND ITS MEMBRANE.

§. I.

1. *Ophthalmia a Synechia.*—MAUCHARTII.
Dissertatio. V. D. DEMOURS Observ.
Edinburgh Essays, Tom. I. P. 90.

UVEA-CORNEAL OPHTHALMY.

THIS is a disease of the Eye in which the edge of the Uvea adheres to the Cornea, with a distortion of the pupil, an inability to bear the light, and nyctalopia.

The Uvea adheres to the Cornea as well because wounds, ulcers, or fistulas of the Cornea have preceded, and the aqueous humor being evacuated, the vitreous humor yielding to the pressure of the sclerotic membrane, pushes the Uvea externally, and thus the Uvea adheres to the Cornea, which it touches ; as on account of the prone posture of the face, the Uvea lays upon the Cornea from its weight, particularly if the Eyes, being

being covered, as in Ophthalmia and Ulcer, the motion of the Uvea itself shall have ceased, which would have hindered this adhesion.

The symptoms are in a great measure obvious to the eyes of the oculist, as the adhesion of the Uvea with the Cornea—from whence its immobility, at least in part of the adhesion, and also from the figure of the pupil being altered from circular to oval or pyriform—hence the impossibility of the pupil's contracting in the meridian light—but the meridian light, if the pupil cannot lessen its volume by its contractile power, darkens the sight, hence Nyctalopia;—the retina also, from the rays of stronger light, feels pain; hence the inability of bearing their force, nay even hence arises pain.—Objects very bright from this cause, appear expanded, and appendiculated; and from the sanguiferous vessels of the retina being turgid on account of the inflammation, the patients see flies, and spider-webs playing before their eyes, as in the myoidal suffusion.

The cure is palliative, or radical. The radical cure is obtained by the needle being

pushed into the anterior chamber. Mauchartius Dissert. de Synechiâ in Disputationibus chirurgicis Ill. Halleri.

The palliative is either the work of nature, which prevents the too great force of the rays of light, by an opaque speck on the Cornea following an ulcer ; or the busines of art ; which, where it cannot supply any other assistance, burns a similar speck on the Cornea with the lapis infernalis.—But it is more eligible for the beams of light to be moderated by the use of colored glafs, green or blue, or by metallic little cups, having a small hole perforated in the centre, to be carried in the hand, and used in mid-day.— After the operation of the synechia, the patient must lay supine for some days, and often expose his Eyes to the light, that a fresh adhesion may be prevented.

2. *Ophthalmia Uvea.*—

UVEAL OPHTHALMY.

This very often happens from the crystalline lens being removed from its situation in a moveable cataract, and having with difficulty

difficulty entered the anterior cavity of the Eye ;—whence it is known by the symptoms of a moveable cataract, by a distortion of the pupil, pain succeeding from thence, without any redness of the Eye, a synechia often happens.

This is cured by extraction of the crystalline lens, by incision of the Cornea ; it is relieved by a constant supine posture, that a synechia may be excited, and a space larger than the crystalline may be produced in the second chamber.

§. 2.

STAPHYLOMA.—Clou.

**STAPHYLOMY.—AQUEO-CORNEAL CYST,
or UVEAL HERNIA.**

This is a watery Cyst from a proptosis, and dilatation of the Cornea, or from an Hernia of the Uvea fallen through a foramen of the Cornea. There is one Staphyloma of GUNZIUS, to which the first of these descriptions is properly applied ; another of the antients, which is impossible, and

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appears to Gunzius fictitious, who is supported in his opinions by arguments of considerable weight.

3. *Caligo a Staphylomate.*

CALIGO from an AQUEO-CORNEAL CYST, or UVEAL HERNIA.

This Staphyloma has different names according to its size ; Melon, a small berry—Muscephalon, the head of a fly---Elos, a nail.

This is a tumor arising in the Cornea from the falling in of the Uvea within a foramen or pipe of the Cornea, which tumor is rather round, and of livid red color.

(Its existence is denied by Gunzius—St. Yves admits a sclerocele, or a tumor of the conjunctiva becoming prominent from the aqueous humor poured underneath from a rupture of the sclerotic membrane, in the white part of the Eye, whence a spherical tumor, which recedes from pressure.)

This is cured by ligature of thread, or hair tied round its basis till it drops off.

SAUVAGES seems to have taken his account of the Staphyloma from St. YVES.—Though HEISTER mentions two similar species, still, he says, he has seen the sclerotica enlarged to a considerable degree, and to this he gives the same denomination. If the disease should be but small, astringent lotions of alum, and pressure upon the Eye, may relieve it ; he advises indeed pushing back the Uvea, in case of rupture, with a blunt probe—all which efforts, should they prove unsuccessful, and the Staphyloma should increase, he advises excision.

Mr. BELL, by no means fond of minute divisions, unites all collections, such as he has described, under one general view, but in compliment to long custom, retains the name. He says, that inflammations on the internal surface of the membranes of the Eye that have been of long continuance are apt to yield a purulent kind of matter, which is poured into the chambers of the Eye, by which the Eye is much enlarged, and vision impeded or destroyed ; so that neither the iris, pupil, or crystalline, can be distinguished. In some few instances, tho' the iris is pushed forward, and a protrusion takes place, which, if not previously opened, at last

bursts of itself, and discharges either some part, or perhaps the whole contents of the Eye. Still sometimes partial swellings or protrusions occur in the sclerotica, or opaque part of the Eye.— During the formation of this disease, there are severe pains in the Eye, attended with constant restlessness, heat, and other symptoms of fever, which continue either till the Eye bursts of itself, or the contents are discharged by an opening made into it.

But, he adds, there are cases which, now and then, occur, without any other inconvenience but deformity, and loss of sight, and this he attributes to the small quantity of matter formed in the swelling, the principal part of the tumor being of a watery nature, possibly from an increased aqueous secretion, still the method of treatment is similar.— Which, in the first stage, is to be attempted by endeavouring to abate the inflammation, by blood-letting, blisters, cooling applications to the Eye, and opiates; if these should be unsuccessful, and other means for abating inflammations; if suppuration takes place, and the pain continues severe, as commonly occurs, from over distension of the coats of the Eye, he then advises an incision into the ball.

Mr. BELL's account gives us not the whole idea comprehended under the term Staphyloma; suppose

suppose it be admitted this purulent collection constitutes a part.—It says nothing of the protuberances which are acknowledged by ST. YVES and HEISTER; which the latter advises to be cut off with the scalpel, or scissars—“ Such a protuberance, says he, in this manner I myself cut off at the root, from the Eye, of the length of one’s finger.” Mr. ST. YVES’s method of removing these protuberances, when they have not wholly obscured and covered the Cornea, is to pass a crooked needle and silk thro’ the middle of the Staphyloma, and after removing the needle, he twists together the threads, and extends them with his left hand, whilst with a scalpel or lancet, he frees the tumor under the ligature, till he can at length totally extirpate it by the scissars. Lastly, he applies a compress over the disordered Eye, dipt in spirit of wine diluted with water. And thus not only the Staphyloma is removed, but the Cornea itself becomes perfectly healed, or else leaves but a very small aperture in the middle of the wound; from whence indeed the aqueous humor is continually discharged, as fast as it is secreted in the Eye, but without any trouble or uneasiness to the patient, because it flows gently with the tears through the lachrymal passage into the nose.

It must be of great disservice to multiply terms where they are likely to perplex, and create confusion, but certainly the same objection lies in contracting where the effects are similar, which here evidently appears to be the case. SAUVAGES considers the Staphyloma as an aqueous or uveal Hernia,—so does St. YVES, which may affect part of the Cornea, or the whole. HEISTER allows, amongst a number of other disagreeable and dangerous symptoms, it induces abscess. In the Staphyloma of SAUVAGES, &c. the Cornea seems only affected, in that of Mr. BELL the ball of the Eye; so that Mr. Bell's may be considered rather as an exophthalmia purulenta, both from its cause, appearance, and mode of cure. In order to fix a clear idea of the two complaints, Staphyloma and Hypopion, we should consider the Staphyloma of Mr. Bell as the exophthalmia purulenta, that of Sauvages, &c. as aqueo-corneal, or uveal hernia, which may be the cause of it; and the hypopion of Mr. Bell as the corneal abscess, a collection of pus inter laminas, not sub lamellis;—by which means all confusion will be avoided, and perspicuity take place of perplexed contractility.

4. *Caligo ab ectasi.* Mauchartii. Hyperauxesis Iridis. L.

APPENDICULA-PUPILLARY CALIGO.

Ectasis, or Chalasis, is an obstruction of the pupil, from fungous appendiculæ arising from its edges. This disease, according to LOWER, is common to horses, and causes in them the meridian amblyopia, or nyctalopia, and sometimes, perhaps, brings on a membranous cataract.

This is cured by the excision of the appendices, by the needle pushed within the Cornea.

5. *Caligo a Synisis.*—Mauchartii.—Woolhousii, &c. L.

CALIGO, from an UVEA-LABIAL COAGULATION.

This is a more full obstruction of the pupil, from the coalition of the lips of the uvea. This imperforation of the pupil is either natural or acquired, as from hypopion, empyesis, purulent cataract, or ophthalmia of the choroidal membrane.

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It is cured by CHESELDEN's operation ; a foramen of the uvea is cut by the needle passed thro' the Cornea.

§. 3:

6. *Cataracta membranacea*.—WOOLHOUSII de Cataracta, 1719. Thesis TIGURI, 1721; a Telâ Histoire de l'Acad. des Sc. 1718, Pag. 18.—Cataracta vera of the Antients. Cataracta membraneo-floccosa. MAUCHARTII Dissert. L.

MEMBRANEOUS CATARACT.

This arises from mucus exuding from the margin of the pupil, or uvea, observed by LOWER among horses—Sometimes it concretes into a membrane, which obstructs the pupil. Whether it ever exists in the human species seems doubtful ; but the most eminent oculists have said, that they have discovered it several times, and depressed it with the needle. Its diagnostic symptoms are not yet distinctly marked.

Dr. THOMAS LAWRENCE had in his possession an elegant preparation injected by himself ; in

in which there plainly appeared a membranous expansion that covered the pupil, and had its blood-vessels filled with the injection ; this was shewn to MEAD.—See Mead's Works.

Mr. GEO. BROTHWICK supplies us with a case of this kind, Medical Comment. Edinb: V. 2. p. 86. where, after cutting the Cornea, the lens made not its appearance from gentle pressure, owing to a membrane which entirely filled up the pupil, thro' which the golden needle of de WENSEL, used to tear the capsule, would not pass. He therefore, as he could easily distinguish this membrane from the circular fibres of the iris, as it was of a different color, made a small puncture in it on one side, where it joined the iris.—At this puncture the aqueous humor of the posterior chamber began to issue ; in proportion as it came away the preternatural membrane was radically detached from the circular fibres of the iris, and at length was entirely discharged from the Eye. This being over, the crystalline capsule appeared. It required some time to cut it with the end of the needle ; this was at last executed, and the lens, which was large and opaque, was then extracted by gentle pressure, and the patient instantly perceived a great light.—Mr. BELL says the seat of this cataract is in the membrane which surrounds the lens, and therefore termed membranous cataract,

7. *Exophthalmia a Staphylomate.* L.

EXOPHTHALMY, from a **STAPHYLOMY**, or **AQUEO-CORNEAL**, or **UVEAL HERNIA**.

This Species exists as often as the Staphyloma, whether it may happen when the Cornea is entire or divided, arises to such a size, that the protuberance remains always bare, or at least in part; nor can the prominent anterior portion of the Eye be covered by the palpebræ.—See Staphyloma.

8. *Amblyopia meridiana*.—*Nyctalopia*, HIPPOCRATIS Prædictiones, L. 2. *Vespertina Acies*. FEL. PLATERI, *Vifus nocturnus*, BOERHAAVE. de Morbis oculorum, P. 161. Amongst the French, *Nyctelopie*—*Vuë de pibou*, *de chat*, &c.**MERIDIAN AMBLYOPY.**

Those who do not see any thing in the day-time, but see sufficiently acutely in the night and evening, HIPPOCRATES says, are *Nyctalopes*.

Nyctalopes. BOERHAAVE recites two Varieties—The first from the opaque Nucleus of the crystalline lens, the pupil still remaining immoveable—but thinks this Species fictitious. It is indeed true, that if, in the day-time, the pupil is contracted, and the nucleus of the crystalline opaque, the sight will be excessively obscure; and if in the evening the pupil should be dilated, and, agreeable to Boerhaave's opinion, the diameter should become triple to what it was in the day, and therefore the aperture nine times as large as it was before, then a sufficient light will penetrate the edge of the crystalline lens to promote clearness of vision —but it is contradictory, that the pupil should be so contracted, even in the meridian light, seeing that a cataract is formed; for by how much less light cataractous people receive, by so much more they dilate the pupil, so constant experience teaches us, therefore this Variety seems fabulous.

The second Variety is that which depends upon the extreme sensibility of the retina, such as happens in internal Ophthalmia, whilst the uvea retains its usual mobility,

lity, such as occurs in children ;—for as in a severe Ophthalmia, Nature so closely shuts the palpebræ, that the patient himself, by the intervention of his hand, scarce has power to open them, for fear of pain which the light occasions, it is not to be wondered at if, whilst the retina is very sensible, as in the internal Ophthalmia, nothing can determine Nature to open the pupil ; it is indeed true, that the entire closing of the pupil is impossible, even in ophthalmics ; and if it should be open a little, a small ray of light, in an eye endowed with sensation, is sufficient for vision—whence, if this species does exist, it is very rarely, unless some other condition takes place, which, according to LOWER, many equerries and horse-breakers observe in horses. Indeed the London Transactions shew us, that those animals are subject to this disease, and that fungous excrescences grow from the margin of the uvea, which altogether obstruct the pupil, when the sun shining, the pupil is contracted, but in no-wise hinder sufficient light from being admitted in the night ; for the pupil of horses, as well as of cats, is so dilatable,

dilatable, that it equals the diameter of the Cornea at that time.

The cure of this requires the hand of a very dexterous surgeon;—but should there be an inflammation of the Eye, it must be cured as an inflammatory Ophthalmmy.

§. 6.

9. *Amaurosis a Myosi.*—St. YVES, p. 346.

AMAUROSY from a Myosy, or CONSTRICTION of the PUPIL.

In all other Species of Amaurosy the pupil is open, nay dilated and immoveable--except that the sound Eye being shut, the pupil of the blind Eye, exposed to the light, may expand—but in this Amaurosis, which has a Myosis for its associate, the pupil is more contracted than usual, and at the same time immoveable; neither is it more contracted exposed to light, as is the case in sound Eyes, nor is it dilated, the other Eye being shut, as in other blind Eyes, but remains the same in the sun and in darkness.

A Myosis is a permanent constriction of the pupil, called also Metosis, and also Phrenisis of the pupil.

O SECTION

SECTION THE SEVENTH,

CRYSTALLINE LENS AND ITS CAPSULE.

§. I.

I. *Ophthalmia a Lente crystallinā adauctā.*

OPHTHALMY from an ENLARGED CRYSTALLINE LENS.

FROM a very singular cure of Ophthalmic Disease, related by Dr. DOBSON, and the suddenness and peculiarity of some of its appearances, as well as cure, we are warranted, we presume, in ranging this Species in this place—but we shall recite the particulars, in order that our readers may form their judgment.

A Lady was seized, says the Doctor, with a total blindness of the right Eye. The attack was sudden—There were a preternatural enlargement of the whole globe of the Eye, and tunica albuginea; the last covered in a great measure with deeply inflamed red vessels; the Cornea distended with viscid matter, in appearance of the consistence of a jelly, the crystalline lens protruded by its increased magnitude through

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the pupil, even so far as to seem to be in contact with the inner surface of the Cornea ; its form very irregular and unequal. The palpebræ were also enlarged, and, at times, were firmly attached to each other, by means of a thick, white, glutinous matter ; nor could these be separated without the most violent tortures, arising from the admission of the air and light, at which time a very copious discharge of acrid tears would ensue. Her other Eye was similarly affected, tho' in a less violent manner. This disorder was accompanied with most excruciating and incessant pains, entirely preventing sleep, and, at times, so insupportably severe, as to induce Deliquium Animi.—After in vain trying cooling purgatives, continued blisters, glysters, antiphlogistic repellent collyria, shaving the head, washing it with cold water, discutient applications to the temples, pediluvia, occasional opiates, appropriate diet, and alterant and nitrous drinks, the disease continued unaltered, nay, indeed, more violent than before ; particularly after purgatives, it was perceptibly worse, as they seldom ever failed to produce greater pain, more restless nights, and frequently syncope. The cure was effected by the use of emetics and cortex Peruvianus—But I should have observed, before these were entered upon, to the above complaints, a month or more after the attack, were added, an intense

thirst, cough, total loss of appetite, bad taste in the mouth, an accession of a regularly formed paroxysm every afternoon, and an universal prostration of strength.

A solution of tartar emetic was given in a saline julep, till it procured vomiting; that being finished, a pill of one grain and a half of extractum thebaicum was swallowed. Her pains were now greatly alleviated, the tumor of the Eye diminished, the gelatinous state of its humors attenuated, and vision began to be restored. She took also a decoction made of bark $\frac{3}{2}$ j. gentian $\frac{3}{2}$ fl. liquorice $\frac{3}{2}$ j. boiled in three pints of water till they were reduced to two:—to which was added of Huxham's tincture of bark $\frac{3}{2}$ ii. chalybeate wine $\frac{3}{2}$ fl. acid elixir of vitriol $\frac{3}{2}$ ij. three spoonfuls to be taken three times a day, when free from pyrexy.

A small degree of opacity remaining in the Cornea appeared to yield to calomel gr. xij. sulph. aurat. ant. $\frac{3}{2}$ fl. formed into twelve pills, with conserve of roses—one taken every night and morning, and on the third day infusion of senna sufficient to act as a purgative.

Quære, From the extreme sensibility of the uvea, from the great encrease of the size of the crystalline lens, and its irregular form, does it seem probable that irritation from
the

the distraction of so sensible a part, with its reaction against the distending power, was adequate to produce all the effects enumerated in this case ; and that the emetic was competent to produce the happy consequences, for the lady was apparently relieved from its first operation ?

§. 2.

CATARACTA. Glaucoſis, HIPPOCRATIS;
Hypochyſis, GALENI; Gutta opaca, and
Aqua of the Arabians—Glaucoma of
ſome; Suffusio, JOHNSTONI, RUMPHII;
Cataracte.

CATARACT.

It is properly defined by BOERHAAVE an abolition of sight, which is attended with a sensible opacity, conspicuous behind the pupil of the Eye.

There was a contention amongst authors who wrote on this ſubject, whether that opacity was seated in the membrane or in the crystalline lens itſelf, but a true definition ought to be free from all theory and opinion.

It

It differs from an amaurosis on account of the disease perceptible in the pupil, or roundish spot, commonly white in the region and situation of the pupil—also from a caligo, because the obstacle preventing vision in that complaint is on the anterior side of the pupil, or in the Cornea, palpebræ, &c. whilst in the Catara&t the crystalline lens, being rendered opaque, with respect to its nucleus, or either lamina of the capsule, whether it should be anterior or posterior, therefore reflects all, commonly transmits not any of the rays of light ; hence it is evident, that the image of objects cannot be depicted on the retina, and thence vision will be suppressed by the means of this repagulum, although the retina, and the other organs of sight may be in a perfect state.

The crystalline lens is not so closely enveloped in its capsule, but one or two small drops of a viscid humor may intervene between the nucleus and capsule ; by the intervention of which, the capsule itself may alter its figure, and become more convex, or flatter by the action of the Corona ciliaris, or ciliary processes, which action ceasing, the

the elasticity of the capsule endeavours to give a spherical figure to the crystalline lens, and in fact this spherical figure is often observed in cataractous crystallines which have been extracted.

The opacity of the crystalline lens seldom happens suddenly, at least from internal causes, but increases gradually ; but it is very likely the Corona ciliaris being relaxed uniformly, the lens itself may be changed into a spheroidal body, and from thence become more convex, and at the same time more opaque.

Therefore the same thing occurs in a recent Cataract, as to Eyes beholding objects through a more convex lens ; they, for instance, cannot see objects distinctly unless they are near them, and placed at a given distance not beyond it, as their sight grows shorter every day ; besides, because the opacity of the speck gradually increases, that which represented a cloud situated at the bottom of the Eye in the beginning, growing more and more white in process of time, will appear to the oculist examining it, nearer the Cornea, or less deeply seated ; for the

same

same object, which reflects a greater light, appears to be placed nearer on that account; —for which reason by how much a greater light that spot reflects, so much less does it transmit to the retina; therefore in time the sight becomes more obscure in a cataract, and when the obscurity no longer increases, the cataract is called ripe, at which period indeed the patients distinguish the light of the sun from darkness, but cannot distinguish the colors and forms of bodies.

There are people afflicted with Cataracts, who at first are affected with a suffusion, or with the appearance of flies, or threads suspended in the air, on account of a complaint of the retina joined with it; but this suffusion sometimes does not accompany a Cataract, nor ought it to be ranked amongst its symptoms; and they are mistaken who suppose appearances similar to straws, or opaque spots, are to be deduced from their residing in the crystalline lens, which DE CHALES, in his Optics, ridicules;—cataractous people, having the retina unaffected, see objects as if enveloped in an uniform cloud; but they see no objects distinctly,
or

or flying in the air circumscribed within certain limits.

The assistance which is given to catarac-tous patients are either physical or mechanical—and these chirurgical or dioptrical.

The physical aids are medicines internally given to dissolve the viscosity of the lymph, as well as externally, to procure its fluxility. Thus broths, and milk whey, mixed with the juice of millepedes, or baths repeated, are very profitable.—The dioptric aids before the chirurgical operation for this disease, are concave glasses, in general of little use because of the increasing opacity, altho' they may be indicated from the myopy, or shortness of sight, with which it is joined.—After the detraction of the Catara&t about three months, not less, the proper glasses are those whose sides are both convex, whose focus is very short, or of the extent of four or five fingers breadth.

The chirurgical assistance is, 1st, From depression of the crystalline lens, which is performed by a two-edged needle being passed near to the temporal canthus a line from the Cornea, behind the uvea, by which means

means the crystalline lens being perforated from above, both the lens and capsula may be depressed and hid in the lowest part of the vitreous humor, and by perfect rest observed for nine days, both Eyes bound over with a bandage, there detained.

* * * The idea of Cataract is now totally cleared from all that confusion in which we find it in the perusal of ancient authors involved; it is universally allowed to be an opacity of the crystalline lens, or its capsule—MEAD says, the hand of a skilful surgeon to perform the operation is the only remedy.—The plain and simple account given of the operation by Mr. JAMES LUCAS, who seems to have paid particular attention to this disease, is well worthy our notice.—He says,

It is a disorder both sexes are equally subject to, children may have it at their birth, no age seems exempt from it; but the greatest numbers affected with it are advanced in years.—This malady, except in unfavourable cases, is seldom preceded by much pain; it usually comes on gradually, and without any visible cause; the patient complains of

a mist-

a mist before the Eyes, and can see better in a moderate than strong light.—The crystalline, or as Mr. POTT observes, the capsula may become opaque from a blow on the Eye; the crystalline humor being opaque denotes the existence of a Cataract, and by the color of it may be often conjectured its being of a favourable or unfavourable kind.

If the opacity is of a light color, or whitish, if the pupil preserves its regular form, and retains the power of contracting and dilating itself freely, if the patient can distinguish light from darkness, one light from another, and strong colors, the operation will seldom be found to fall short of a perfect cure. An opacity in the Cornea, a gutta serena, an immoveable contraction of the iris, or an adhesion of the crystalline capsula to it, may accompany a Cataract, and prevent the benefit of the operation.—A low diet, with a dose or two of opening medicines, and in some cases bleeding will be found useful previous to the operation. Peculiar habits may require variations—but so long as the patient can see with either Eye to be useful, the operation is better deferred, which is either depression, or extraction:

Each

Each have their advocates, but the former is a more simple, and less difficult operation, neither tedious, painful, nor hazardous, but one of the most satisfactory in surgery ; it is less liable to be succeeded by violent inflammation ; and though the first operation fails, yet the cure may generally be accomplished by a repetition.—Extraction effects all it is capable of doing at one operation, the cure is more speedy than by depression : but an imperfect vision has succeeded in some cases, from remaining portions of the crystalline capsula, which might still be removed by the needle.

The round needle of Baron HILMER he prefers to the flat, as with it there is less danger of wounding the iris, or ciliary processes—The weight of the needle half a dram, and about four inches and an half long, the point a little flat, and the handle has a little flatness, which corresponds with the point.—Every surgeon, who performs the operation on the Eye, should accustom himself to use the left hand, which practice is readily acquired, and very satisfactory.—Too much light in the room, or a double light, must be avoided ; the seat of the operator

operator must be higher than that of the patient, who must be directed to employ his hands in taking hold of the chair, to avoid lifting them up against the instrument, and the opposite side must be kept from motion by a linen comprefs.—The head must be held firm.

The point of the needle, previously dipped in oil, must in its introduction be directed a little backwards, a little upwards, and in a line with the center of the pupil; when it is brought forward, care is required to avoid the iris, and ciliary processses, by carrying the instrument too far, or not far enough, for its point to be in view.

If the cataract is firm enough, by bringing the needle before it, to bear depressing beneath and behind the pupil, the needle may be withdrawn in the same direction in which it was introduced.—Should the Cataract rise again, it may still have been so far dislodged as to cause its dissolution, should it slip into the anterior chamber, as sometimes happens in attempting the depression, it will gradually dissipate without any further operation.

If

If the Cataract is fluid, breaking, or even sometimes penetrating the capsula, will cause the morbid humor to mix with the aqueous, and if a future operation is required, it will be to remove some portions of the opaque crystalline.

A Cataract would very frequently be effectually cured by one operation in length of time ; but the pain from the repetition is so tolerable, that many wish it to expedite the cure. When the remaining portions of the Cataract are so loose as to shake with the remaining motions of the Eye, a cure may be expected without another operation ; adhesion and opacity of the capsula seldom dissipate without a repetition.

The principal cautions in couching are, not to wound the iris, or ciliary processes, and not to attempt too much at one operation.—Patients bear very well to have one Eye couched immediately after the other ; a little more care is necessary in confining the motion of that Eye, which has just undergone the operation. The Eyes must be covered with a piece of linen spread with some mild cerate, whether one or both have been

been couched : the patient must sit or lie in the dark, and live on low diet, for several days.—Should inflammation and pain succeed, bleeding with leeches, arteriotomy, blisters, anodynes, nitre, and such other antiphlogistic means as are generally employed in local inflammations, will merit the utmost attention, as an obstinate inflammation may endanger the success of the operation.—After a child is old enough to bear the operation, where the head being held still is of so much consequence, couching may be proper at any age.

A fluid Cataract is equally opaque with a firm one, and does not depend on the disease being recent. Depression is equally capable of perfecting a cure ; whether the Cataract be fluid or solid, and when the blindness has existed for two months as two years :—and in doubtful cases may be tried as a remedy by no means violent or hazardous.—An opacity of the Cornea has been so thin, as to admit of considerable benefit from depressing a Cataract, but also the same cause has prevented any material advantage.

To

To this account, in order to render it more fully perfect, it may not be thought improper to add—That the hands of the patient should be held by assistants, to prevent interruption, which would be of the greatest disservice; the operator's elbow should have a rest, in order to give steadiness to his hand; the Eye fixed in a proper speculum, the needle introduced rather below the centre, and about one tenth of an inch behind the iris, and the crystalline lens carried to the bottom of the Eye through the vitreous humor towards the external angle, and by these means it will seldom rise again, a circumstance which sometimes happens.

With regard to the idea of maturity in the Cataract, we cannot avoid taking notice of so respectable an authority as Mr. POTT; —though it has been thought the soft state of the crystalline lens implies its being unripe, the hard state of it being mature.—Of this idea he approves not, and instead of using these terms, he would say, that dissolution or softening the crystalline is by much the most common effect, and that seven times out of nine, when the lens becomes opaque,

opaque, and tends to form a Cataract, it is more or less softened.—Sometimes this happens equally through its substance—sometimes partially, having a greater or less portion undissolved—but even this undissolved part rarely or ever is so firm as the centre of the sound crystalline. He seems to conjecture that Cataracts which have been found perfectly soft, have in general become more and more opaque by slow degrees, and firm ones hastily opaque; of which opinion he wishes from observation to be satisfied.—

From the color of the Cataract he thinks no conclusion can be drawn, with regard to its consistence; but that when the opaque crystalline is quite dissolved, so as to form what has been called a soft Cataract, it is somewhat enlarged; and that when such dissolution does not take place, and what is called a hard Cataract is formed, the crystalline is in some degree lessened. But in either case he prefers couching to extraction, and shews that the lens is readily dissolved in the aqueous humor when freed from its capsula. He also wishes to know whether the hard Cataracts becoming hastily opaque

are not preceded, or accompanied by severe and deep seated pain in the head, particularly in the back part of it.—Med. Comment. Edinb.

Secondly, the EXTRACTION OF THE CRYSTALLINE AND CAPSULE is performed by cutting the Cornea round about three fourths of its circle, beginning from its lowest part, which is done by the means of crooked scissars, an incision first made with the lancet, in the meantime the Eye is to be kept fixed by a speculum placed under the Eye-lids, the incision being made, the crystalline, by gentle pressure, is pushed to the orifice, or if the crystalline is not sufficiently ripe, it may be extracted by the help of the aurisscalpium; then the jagged edges of the capsula, and the mucus and flocks falling from the capsula are alternately removed.

In the first method we must wait till the Cataract is perfectly formed, or matured—otherwise, as it is said, we should fear the depressed crystalline might rise again; or rather, least the opaque mucus of the capsula should remain, which may bring on a secondary

dary Cataract ;—In the other method we may have reason to be afraid, lest by the too strong pressure of the Eye, the vitreous humor should flow out along with the aqueous, and what more frequently happens, lest the choroidal membrane should be inflamed highly, because, perhaps, when the lens passes through the foramen of the pupil, or is extracted by the auriscalpium, the uvea and corona ciliaris may be too greatly distended.—This ophthalmmy persists for fifteen or twenty days, which being subdued, an uncommon and singular suffusion, though a temporary one, comes on, the patient at that time appears to see objects as if sprinkled over with snow, with a black bird in the centre.

Immediately after either of these operations, the albuminous collyrium, of the white of egg and rose water mixed, should be applied over the Eye ; but besides this, in the last method the Eye ought to be bound down at least for four days, lest by coughing, vomiting, or sneezing, the vitreous humor might escape through the wound of the Cornea.

We have an account of a new method proposed by AUGUSTUS GOTHLIEB RITCHER, which he has often practised, and never without success; the want of which in extracting the Cataract may proceed from various reasons, according to his opinion ; but occurs more especially from the following causes, viz. Either from the disorder being conjoined with some general affection of the system, as the gout, scrophula, venereal disease, or from the capsula of the crystalline lens, which, in this operation, is always left behind, in some cases becoming opaque, and otherwise diseased—In every operation of this kind, therefore, the general health of the patient should be previously examined, and if any of the above-named disorders are prevalent, they should either be corrected, or, if that cannot be effected, and the operation is insisted upon, a very doubtful prognosis should be given.

But with a view of preventing blindness from the last-mentioned cause, he proposes the following operation, which he was led to by finding on dissections, that, in couching, or depressing the Cataract, the capsula is always depressed also.

After cutting the Cornea in the usual way, he introduces a small sharp needle, guarded with

a cas-

a canula, and pushes it into the lens, then raises its point upwards gently, then depresses it, and afterwards moves it in all different directions, so as to detach the lens and its capsula, effectually from the surrounding parts.—After this by making a very gentle pressure on the Ball of the Eye, the Cataract covered with a tunic is easily pushed out. It may be objected to this operation, that the vitreous humor will be very readily pushed out together with the lens, but when it is cautiously done that accident he observes never happens—Med. Comm. Edingb.

The operation for extraction of the Cornea is too loosely described by SAUVAGES; the lower part of the Cornea should be divided by a two edged knife, whose side which keeps near the Iris should be round, this should enter the Cornea about its center, one sixteenth part of an inch from the Iris, and pushed thro' the other side, then divided thro' the lower part at an equal distance from the Iris, a speculum at the same time pressing the Eye in a degree sufficient to keep it firm, yet not powerful enough to press out the vitreous humor; this done, a sharp probe, needle, or flat curved probe should be pushed thro' the pupil to divide the capsula of the crystalline lens, and the lens forced out by gentle pressure; the wound in the Cornea, if

necessary, should be enlarged by the scissars.--Before the lens is pressed out, all light should be secluded from the eyes of the patient, in order to occasion a dilatation of the pupil as much as possible; with regard to extraction of the remaining part of the capsula when opaque, as is sometimes the case, as practised by some, after the operation; BELL disapproves of it, and rather advises to trust to time, and an antiphlogistic regimen for the removal of the opacity.—Tho' Mr. BELL recommends great caution in order to avoid the extrusion of any of the vitreous humor, when that has been the case, he has known the Eye filled again so as to preserve its globular appearance, whether owing to a renewal of a larger quantity of the aqueous humor, or to that of the vitreous he is not clear, he supposes it may be the latter, but which ever it was, the sight was regained. After this operation, the same means in order to prevent or cure inflammation is necessary, as was recommended after couching.

We have seen that couching is prefered to extraction, by LUCAS, POTT, and so is it also by BELL and the generality of surgical operators—there are three objections enumerated by BELL against the latter.—viz. That the vitreous humor is apt to pass suddenly off along with the Cataract.—2d. That the incision being made

made in the transparent part of the Eye, the cicatrix which ensues is frequently so extensive as to obstruct the rays of light in their passage. And 3dly, the lens being often too large for passing thro' the pupil, the iris is frequently injured by this part of the operation, tho' very properly performed perhaps in every other.

To prevent the two first inconveniences he purposes dividing the Cornea in the superior parts, and performing the operation as before, only with this difference, cutting from the center towards the top of the Eye, and extracting the crystalline if retained in the pupil, to which in this case it may be more liable than in the former, either with a scoop, a small sharp hook, or a pair of forceps made for this purpose.

To avoid the last, he recommends an opening to be formed behind the iris, which would also prevent any inconvenience to the sight from a cicatrix,—the opening should be made in the upper part of the Eye, about the tenth part of an inch behind the transparent Cornea, of a sufficient size to admit the crystalline to pass, which should be extracted by a sharp crooked probe—The apparent objection to this operation might be the fear of a more violent inflammation coming on, and the substance of this coat being thicker than the Cornea, wounds are commonly supposed to be more difficult to heal—these did

not happen in the experiments made by him on rabbits, in a greater degree than when the operation was done in the usual manner.

All the experiments recommended have been made successfully on animals, and seem to be so well supported upon rational principles, that they merit every attention, and will upon trial, it may be hoped, answer every desired end.—See BELL's surgery, vol. 3.

3. *Cataracta vera*, MAITRE-JAN ; Glaucoma, WOOLHOUSII de Cataracta, Page.

30. Cataracte vraye; St. YVES, des Maladies des yeux. Cap. 14. L.

TRUE CATARACT.

This is divided into different varieties, as *virgata*, *striated* ; *luxata*, *dislocated* ; *purulenta*, *purulent* ; *exsiccata*, *shrunk or exsiccated* ; and *protuberans*, *protuberating*.

A—*virgata* striated, St. YVES, P. 288.
Cataracte barrée.

In this the opaque crystalline humor is intersected with one or more colored lines, however

however they may be disposed. This variety seldom has the crystalline so ripe, that it can be depressed; for the crystalline lens being wounded pours out its white or yellow mucus, by which means the aqueous humor becomes foul; whence the sight remains obscure, unless the mucus sinks down spontaneously, or the operation being repeated it is removed downwards by the middle.

B—*purulenta*, ANT. MAITRE-JAN; Cata-racte purulente, un abscés au Crystal-lin. L.

PURULENT CATARACT.

This is produced by the suppuration of the crystalline lens. Pain in that Eye precedes suppuration, sometimes with external Ophthalmia, and frontal hemicrania, a cloud of the crystalline comes on; matter being formed the pain abates; the lens grows white, swells unequally, altho' it is of a smaller size; the pus being poured out the aqueous humor becomes foul, the color of the iris is changed, the pupil much contracted, and

the

the sight very obscure.—See Ophth. ab Empyese, and Calig. a Myosi.

C.—*agyrias.* WOOLHOUSII and MAU-
CHARTII.

ARGENTEAL, or SILVERY CATARACT.

Upon the crystalline lens a small shining speck like silver, or macula, discovers itself, which is thought by St. YVES to be formed by a partial diminutive abscess upon the surface of the crystalline; that white point sometimes remains thro' life, and only obscures the sight in a small degree, the afflicted in whatever direction he turns his Eye, he receives a shade, or a little cloud diffused over the object;—so says MAITRE-JAN.

D.—*clavata,* WOOLHOUSII de Cataracta,
p. 21. Albula & Tophus, of the Antients;
Perosiæ, calli, & clavi Oculorum;—
Is it the Grando of Mauchartius? L.

CLAVATED, or NAIL-LIKE CATARACT.

This has been observed only by WOOL-
HOUSE alone; which happens to dogs fit-
ting

ting perpetually before the fire ; and this arises from white fibres, which like a nail passing from the conjunctiva, where they form a knot, penetrate into the Eye and crystalline lens, and as it were perforate and fix them together.

E.—*luxata*, Cataracte déplacée, MAITREJAN, and St. YVES.

DISLOCATED CATARACT.

This depends upon the crystalline lens becoming opaque, but removed from its natural situation.

It is discovered, 1st, from the cause, viz. a blow upon the Eye with an effusion of blood, or hæmalope ; 2dly, from the immobility of the pupil, and a great mydriasis ; 3dly, from the crystalline growing white, and pressing the uvea which it pushes outwards ; 4thly, then the lens becomes dry, and decreases ; at that time the patient perceives the shadow of objects placed between the sight, and Eye affected.

MAITRE-

MAITRE-JAN thinks it is useless to interfere with the crystallines affected as above.

F——*synchesi*, MAUCHART. Cataracta viva
WOOLHOUSII ; Glaucoma, HEISTERI ;
Cataracte branlante, d'ANT. MAITRE-
JAN ; fonte & dissolution du Vitré.

SYNCHESY, or MOVEABLE CATARACT.

This is an abolition of sight, with a white or yellow speck from the crystalline opaque, and at the same time moveable at every motion of the head ; the crystalline is diminished, and indurated.

This proceeds from a dissolution of the vitreous humor, into yellowish putrid serum.—An internal Ophthalmia precedes, which runs into suppuration, with excruciating pains, and then in the beginning the pupil appears white ; sometimes the dissolution is putridinous without pus ; at the onset the bottom of the Eye is seized with pain, and also the anterior part of the head ; the sight then becomes obscure, or is altogether lost ; the crystalline lens is clouded,

grows

grows white, and yellow, the pupil is dilated ; the iris loses its natural color, is corrugated, and adhering to the crystalline, the uvea is determined inwardly or outwardly.

This putridinous dissolution is an incurable disease, taking away the sight, but occasions no other mischief to the Eye.

2. *Cataracta glaucoma* ; ANT. MAITRE-JAN, St YVES, Le Glaucome of MAITRE-JAN, not of WOOLHOUSE.

GLAUCOMY, or EXSICCATED DECREASED CATARACT.

This is an exsiccated Cataract, and it is known ; 1st, from its bluish, or greenish color ; 2dly, from its diminution of size, its lost transparency, its hardness increased, and vision being totally destroyed, according to St. YVES ; 3dly, pain rarely precedes, unless the Cataract arises from an internal Ophthalmmy, or from a blow which is thought by the above author most frequently to happen ; 4thly, the pupil is round and of its natural

natural diameter ; but according to St YVES a mydriasis attends ; 5thly, the sight in the beginning is cloudy, as in a cataract, yet from the larger angle of the Eye, has a clearer perception ; 6thly, the crystalline lens changes its color, it is at first bluish, but afterwards grey, pearly, or greenish-yellow, nay a blackish-yellow.

According to St. YVES it differs from the cataracta vera, because a glaucoma is accompanied with an amaurosis, or gutta serena.

This disease is incurable, if, as St. YVES thinks, it is accompanied with amaurosis, or blindness, from a paralyssis of the retina.

3. *Cataracta anti-glaucoma* —— ANTON. TREJAN, l'ANTIGLAUCOME. L.

ANTIGLAUCOMY, OR EXSICCATED ENCREASED CATARACT.

This differs from a glaucoma ; 1st, because the bulk of the crystalline lens appears larger, which in a glaucoma is less ; 2dly, the pupil may be dilated ; 3dly, the crystalline protuberates, and resembles the cor-

for of polished horn, shining ; altho' its superficies becomes unequal ; 4thly. because the periphery of the pupil resembles the inequality of the crystalline lens ; 5thly. there is at last no vision, no contractility of the pupil ; 6thly, no pain precedes, or accompanies it, such as precedes the origin of a glaucoma.

It differs from a true cataract, because in the first place, in a cataract the anterior capsula of the *Crystalline lens* is dissolved; *in the anti glaucoma it is indurated or thickened*; 2dly, from whence the lens appears larger, but in the glaucoma less ; 3dly, the crystalline in a glaucoma, is variegated, deep-seated in the antiglaucoma, of a pure color like white horn, and protuberating.

This disease is incurable.

4. *Catara&cta secundaria, HOIN. Mem. de l'Acad. R. de Chir. Tom. 2. p. 425. L.*

SECONDARY CATARACT.

The cataractose crystalline being depressed, the crystalline capsula, it often happens, is not deterged; particularly if the patient from his

his own negligence, or that of his surgeon, should permit an internal inflammation to come on so that that part of the capsula which adheres to the vitreous humor may become opaque, and white; in the same manner as the Cornea in an Ophthalmmy is rendered opaque, when there is an external inflammation; as well as from the mucus adhering to the capsula itself being exsiccated or collected there; for a secondary cataract does not happen when the crystalline lens has been extracted by DAVIEL's method, and the capsula deterged from its mucus, altho' an internal Ophthalmmy often supervenes this operation.

If we consider the use of DAVIEL's operation, a cataract may be divided only into two varieties, viz. into simple which may be cured by extraction of the crystalline lens, but hitherto scarce a fourth part from this operation have recovered distinct vision; and into those complicated with amaurosis, atrophy, Ophthalmmy, &c. which have undergone the operation to no purpose, or with very little advantage.

The

The daily use of white henbane, beginning from a third part of a grain, and gradually encreasing it, so long as there is no dryness in the œsophagus, or nostrils, is the most famous, and almost only, remedy for the resolution of a cataract, which I have found from many observations.

A priest was afflicted with this complaint in the right Eye, who, after taking this medicine for eight days, in which time he advanced to three grains, could read a book printed with very small letters, tho' before could not see them, except they were very large ; the crystalline lens first became white, then bluish, and rather pellucid, the myodal suffusion, under which he labored, disappeared, but his appetite and rest, which he before enjoyed in a very imperfect state, became perfect and vigorous.—By this medicine we saw another man cured by Dr. COULAS also, whose crystalline lens became totally diaphanous.

Mr. George Borthwick in the same paper which we have before quoted, tells us, that af-

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ter

ter extracting the lens which was quite opaque, the Eye-lids of the patient was shut, and kept in that state a fortnight, dressing the Eye once every day ; at the end of which, he was desired to open his Eye-lids, he then perceived the light, and enjoyed such a degree of sight as to be able to walk about.—In this way he continued for two months.—His sight then began to grow more dim, and in a few days after, he became as blind as before the operation. On examination, the Cornea was quite pellucid, and the iris sound, but the crystalline capsula was perfectly opaque, which gave the Eye the same appearance which it had before the operation.

§ 3.

5. *Strabismus a Crystallino. L.*

STRABISM, FROM A DISLOCATION OF THE CRYSTALLINE LENS.

This species, which may be perhaps fictitious, depends upon a luxation of the crystalline lens, as the lens may be placed obliquely in the pupil ; for since in this case the things we behold before us may send out their rays, which being refracted obliquely

bliquely from the crystalline, fall not upon the middle, but upon the sides of the retina; the patient, that he may see more clearly, is forced to look at the object obliquely, so that the cone of the refracted light may fall into the middle of the retina, where he may see more distinctly.

SECTION THE EIGHTH.

VITREOUS HUMOUR.

§. I.

1. *Ophthalmia tenebricosa*; Hydrophthalmia of the Greeks; MAITRE-JAN de l'Extension du Corps Vitré 2. p. Cap. 1. Idem Exophthalmia Chap. 6. p. 2. Gutta Serena with some. L.

TENEBRICOSE, OR VITREO-PUPILLARY OPHTHALMY.

IN this Species, the forehead, and one or both Eyes are afflicted with pain.—The pain abated, or receding, the bulb of the Eye appears a little larger, and more prominent; the pupil is much more dilated, and less contracted by the stimulus of the Sun's rays, than in an healthful state; the sight is so much obscured that the patient can scarce distinguish objects, scarce can they walk alone.

The

The prominence of the Eye is less apparent, if the iris is black, particularly if both are affected; but more visible if the iris is blue, or rather light colored; the Eyes are chiefly open; by proper assistance most of these recover their sight, yet not so perfectly as to have their former power of distinction, or clearness.

This disease most commonly happens to atrabilious men; to women one or two months gone with child, and continues to the time of delivery; to obstructed virgins, whom it afflicts four or five months.

This in the beginning is with difficulty distinguished from an incipient common cataract, and also from the cataracta glaucoma; but seeing that no opacity of the crystalline lens comes on, and that the sight some time or other is restored; thus it is known from other diseases.

The proximate cause of this disease is, the increasing bulk of the vitreous humor, by fluxion or congestion; whence arises a dilation of the pupil, pain, swelling of the Eye, a pressure of the retina, and obscure vision.

If the fluxion exciting this ophthalmmy is more powerful, and the fluids more acrid, the Eye protuberates more externally, is truly inflamed, lancinates within, the pain becomes almost intolerable, a redness externally with heat, nay indeed an acute fever, want of sleep succeed ; the Eye-lids cannot cover the Eye, but are inverted, a scalding epiphora, obscure sight, and at length a perfect and incurable amaurosis come on, and the internal parts being supplicated, a synchesis, or dissolution of the vitreous humor happens, also the fistulæ perforating the Eyes, all which ought to be referred to an internal Ophthalmmy.

At the beginning, this disease requires repeated bleeding in the arm, feet, and neck ; nay even arteriotomy, according to the violence of pain, and degree of plethora, then those things which may evacuate serum, as blisters ad nucham, and behind the ears, also cathartics repeated every sixth day, and the following ptisan.

R. Rad. Sarsæ. ʒj.

Chinæ. ʒſs. decoquantur in

Aq. font. lb iv. ad 1bj. f.

Sum. cyatha quo serò & manè per dies quindecim.

Topical applications, except resolvents, scarce ever agree with this complaint, and these indeed afford but trifling advantage.

CULLEN arranges this under idiopathic Ophthalmia of the membrane of the Eyes.

§ 2.

E X O P H T H A L M I A ; Magnitudo nimia, prolapsus, Expressio Oculi of the Latins ; Hygrophthalmia, Elephantiasis Oculi, BOERHAAVE ; de Morbis Oculi, Part. 2, Cap. 5 ; Exophthalmia, Hydrophthalmia, Buphthalmus, seu Buphthalmia, Ophthalmoptosis, Ecpiesmus, of the Greeks ; MAUCHART. Differ. de Hydrophthalmia, & ocul. paracentesi, inter HALLER Disputationes Chir. Tom. 1. Grosseur contre Nature, hydropsie, cancer, chute de l'œil ;—MAITRE-JAN Part 2. Chap. 6. St. YVES, part 2, Chap 1.

EXOPHTHALMY, OR PROTRUSION OF THE EYE.

A dislocation of the Eye ; its natural size increased, or not sensibly changed ; therefore the globe, more or less distended, rises from its orbit, either swelling or pushed out, and falling downward, its bulk scarce altered ; nor can it be covered by the palpebræ, which should close over the Eye, healthful in other respects.

2 *Exophthalmia hydropica*.—Hydrophthalmia, Buphtalmia MAUCHARTII ; Hydrophthalmia PLATNERI Institut. Chirurg. §. 754 ; Hydrophthalmia BOERHAAVE ; Turgescentia Vitrei serosa, MAUCHARTII. Hydrophthalmia serosœ vitrei turgescentiæ mixta, of the same ; Hydropsie de l'œil, St. YVES.—Grosseur contre nature de l'œil ; extension non naturelle du Corps Vitré MAITRE-JAN. D.

DROPSICAL EXOPHTHALMY.

This species is owing sometimes to the increase of the aqueous humor.—Hydrophthalmia ;—sometimes of the vitreous—Serosa vitrei turgescentia ;—sometimes to the increase

encrease of *both*,—Hydrophthalmia \overline{c} turgescensia humoris vitrei.

The symptoms of the hydrophthalmia are, a gradual encrease of the bulb of the Eye, with a turgid tension, and rising from its orbit; the Cornea elevated and more prominent than usual, the iris deeper seated, and farther removed from the Cornea; the pupil immoveable, sometimes larger, sometimes more contracted, tho' according to MAITRE-JAN the pupil remains the same with respect to its magnitude and mobility; the vision in the beginning is faultless, but in the succession of time weaker and more obscured;—sometimes it is attended with a slight, obtuse pain at the bottom of the Eye, sometimes the pain is more acute with an hemicrania of the side affected, a numbness of some parts of the face, sometimes with emphysema, tooth-ach, watchfulness, at length in the ulterior encrease of the bulk with an epiphora, and extroversion.

The symptoms of a serous turgescence of the vitreous humor are; a remarkable encrease of the Eye, pushing out of its orbit, with

with a particular hardness and turgid tension ; a slight shade of the crystalline lens poured from the edge of the vitreous humor elevated around it ; squinting upwards ;— sometimes an obtuse, sometimes a violent pain ; an extraordinary diminution of sight ; the iris convex, approaching nearer to the Cornea ; the pupil more dilated than usual, and altogether immoveable.

The diagnosis of the complicated hydrophthalmy, or that united with a turgescence of the vitreous humor is more difficult, but there is no great difference in the mode of cure.—Yet this may be foretold from the too great bulk of the globe of the Eye, encreasing more quickly ; from its remarkable hardness ; from the strabismus ; from a general dilation of the pupil ; from the deep situation of the iris, and from the Cornea being more elevated. This complicated variety is owing sometimes to more acrid serum, sometimes to serum more mild pouring itself into the Eye ; in the first instance internal and external inflammation, fever, want of sleep, accompany the symptoms

toms before enumerated ; in the second they do not attend.

This dropical Exophthalmus, not neglecting the inflammation of the Eye should it be present, is cured by bleeding, repeated cathartics, internal spirituous resolvents, discutients applied to the Eye ; blisters, setons, issues, and even the operation of the paracentesis performed in the sclerotica and Cornea*. See Mauchartius.

§. 3.

3. *Apostema Synchysis*, dissolutio Vitrei ; œil fondu. C.

AN ABSCESS FROM A SYNCHYSIS, OR
AQUEO-VITREOUS DISSOLUTION.

This is a conversion of the aqueous and vitreous humor, with all the contents of the bulb of the Eye, into a viscid, concocted pus, which in process of time is in part

* Where there is no probability of restoring the sight after the puncture, it is better to bring on such a degree of inflammation by seton or otherwise, as will occasion a coalescence of the parts to prevent its return.

changed

changed into a yellow serum, the remaining part inspissated ; see St. YVES, p. 221. MAITRE-JAN, p. 2. ch. 8.

§. 4.

4. *Amaurosis a Synchesi* ; ab uveæ phlogosi MAITRE-JAN ; ab oculi interni suppuratione of the same.

AN AMAUROSY FROM A SYNCHESY, OR AQUEO-VITREOUS DISSOLUTION.

This is a confusion, or mixture of the vitreous humor dissolved with the aqueous.

It is that which begins with acute internal pains of the Eye, the most obstinate, with a head-ach, or hemicrania, watching, fever, sometimes also with Exophthalmy ;— the sight is darkened, the vitreous humor dissolved ; the pain perseveres sometimes for many months, nay whole years, nor is the sight restored, but altogether abolished. — This amaurosis is incurable.

But it often happens, that thus one Eye being lost, the year after the other Eye becomes painful, inflamed, from the pain of the head and effusion of tears, and the same misfortune

misfortune threatens the other Eye—St. YVES presumes that it may be avoided by extirpation of the diseased Eye.

But the extirpation of the Eye, or the excision of the Cornea is by no means void of danger, and I saw twice an incurable hemicrania, and once indeed a mania originate from this source.

The operation in extirpating the Eye has been considered by many of so very dangerous a nature, that few have courage to attempt it ; but it has been successful in a variety of cases, and indeed in those where life would be endangered by its omission, it should at all events be performed—BELL is a favourer of this opinion, and shews clearly the danger attending it is not so great as is imagined ; see his Surgery, vol. 3. p. 385, &c.

SECTION

SECTION THE NINTH.

RETINA.

§. I.

SUFFUSIO.—Scotoma Heurnii; Med Praet. Suffusio of the Latins; Hypochyma of the Greeks; la Berluë.

SUFFUSION.

THIS is a sort of disease of the imagination, whose principal symptom is a depravity, or error of the sight with respect to objects; so that those who labor under a suffusion, think they see things which are not, as flies, sparks, colors; the prototypes or reality of what did not exist before the Eyes.

It differs from a vertigo, because a suffusion represents bodies, or substances which are not, but a vertigo the modification of bodies, viz. the motion, so that in suffusion, we imagine substances which are not; in vertigo

vertigo the motion of bodies presenting themselves, which motion does not exist.

Imagination is the faculty of perceiving things absent; to that therefore is the fault to be attributed, if those things which do not act upon the senses, we suppose in reality present: this is the case in suffusion; whence it comes to pass; that to ourselves we seem to see sparks, webs, flies, lighting, as if they actually presented themselves to our view, at the very time they do not.

Morbid optic depravities are allowed to arise from some defect of the brain, or chiefly of the Eyes; those which happen from the former relative to visible objects, are suffusions or vertigos, attended with many more severe symptoms; as sopor, convulsion, delirium, melancholy, &c.—But if the optic depravity arising from the defect of the Eyes, should be the principal symptom, then it constitutes the proper genus, as vertigo, or suffusion.

The depravity arising from a defect of the external organ, but not of the brain, is called by PLATERUS. *hallucinatio*, that it may be distinguished from delirium, whose principle

principle is in the brain ; to which we should add, that we can correct that depravity called hallucination quickly and easily, by the assistance of our other senses, as by means of the touch or hearing ; but a delirium cannot be removed by these means so readily, because the functions of the mind necessary to produce that correction, are prevented from exercising themselves properly from a defect of the brain itself, the principal instrument of these functions ;—thus physicians commonly agree that patients laboring under vertigo and suffusion are not delirious, who only have their sight depraved; but the melancholic, maniacal, phrenetic, are delirious ; hallucination is an acquiescence in a false judgment ; such is that of a patient afflicted with suffusion, who from perceiving the image of a fly, thence precipitately infers that there is a fly before his Eyes ; but the judgment is erroneous, as often as the thing spoken of is not determinable by the knowledge of the subject ; but when the perception is confused, as in suffusion, a certain conception which involves a distinct idea, is not given :— therefore

therefore from a brown or black shade, from an error, the presence of a fly is inferred.

But he who has a suffusion easily corrects this mistake, when stretching forth his hand to the place where the fly is perceived, not touching any thing, he thus reasons intuitively.—*It is a contradiction that there should be a fly where we perceive the image, and it cannot be touched; but one or other of the things contradictory is impossible; but it is possible for the image of a fly impressed upon the Eye to be referred hither by the mind, which cannot be touched; and thus he frees himself from his error.*

It is certainly astonishing, since we can only perceive objects by the intervention of an image depicted upon the retina, that the image itself should not at least be perceived by us, but that this sensation should be referred to the objects which we see; hence, led by custom, when the image of an object is applied upon the retina, altho' the most confused, we infer that the object answering to this image is presented externally from without the Eye, and if any

thing should be defective in it, imagination supplies the rest.—Thus from an image resembling a mere circumscribed circular shade, we imagine, a fly, wasp, or hornet to be before us, and therefore to this obscure spot imagination adds wings, legs, proboscis, and other parts of the insect.—For this is the law of the imagination, that as often as a simple idea strikes the mind, so often those ideas occur which have been used to accompany the former, as the idea of place, time, is added by the imagination to every indeterminate narration ; in a word, imagination embraces not universal, but only individual, or perfectly determinate objects.

The object, which we perceive by the imagination as present, is called phantasma, *phantasia imaginatio*, imagination ; there are different phantasmatæ or spectres in different species of suffusion ; the principal ones will be here described.

i. *Suffusio-myodes*; *Scotoma, Heurnii de Vertigine.*

MYODAL, OR FLY-FORM SUFFUSION.

The flowers of orchis, upon which flies, wasps, hornets, and such like flying insects are apt to settle, are by the botanists called myodes, as resembling to flies.

This species of suffusion represents some similar insect flying in the air before the Eyes;—but if the Eye being fixed looks upon paper, quickly we discover the fly to be fixed also, not to be moved except the Eye should alter its position.—A dioptric computation seems to persuade us, that the greatest distance to which this phantasma is carried, is ten or twelve fingers breadth, or thereabout, not to exceed that; but it is known amongst opticians that the object is not to be seen in the place where it stands, but only in the virtual focus from whence the rays penetrate, or are thought to penetrate the Eye.

The best Eyes, as far as they respect acuteness of vision, transparency of the organ

gan and figure, are liable to this disease ; but old and myopic men are not free from it.

It was an optic error of the antient physicians to assert, that they perceived in the suffused Eye something opaque, as the rudiment of a cataract, which gave rise to this phantasma. That error originated from a preconceived theory ;—hence it happens, that many even at this day hold a suffusion as a symptom, associate, or fore-runner of a cataract, altho' the notion is often repugnant to experience.

In order to produce this suffusion it is necessary, that whatever it be which intercepts the rays of light, should be placed behind the middle of the crystalline lens, and by how much nearer it is to the retina, as in the vitreous humor, or the retina itself, by so much more strongly will the imaginary fly be expressed ; for the rays which fall upon the Cornea from every point of a hæmisphere, which is extremely large, pass into every point of the Cornea and pupil ; but when the cones of light from thence proceeding shall be inverted, every cone, proceeding

proceeding from a given point of the hemisphere, gradually separate more and more from the others, so that the apex having arrived at the retina, must be totally distinct from all other cones, therefore should there be any point in the retina covered with a small drop, for instance, of blood that is impervious to the rays of light coming from without, that point of the retina will not be able to receive the cone of light, whose apex is there, and the basis in the whole superficies of the Cornea; hence no part of the former object, whose rays constitute the inverted cone. Should a drop of blood be effused in the texture of the retina, since that must be opaque, it will intercept the external rays coming from a determinate place, and that place will appear more obscure, or black, and the diameter of its shadow will be 7, or 8 times larger.

Let a man laboring under suffusion use a glass very convex, or a microscope, at that time the fly vanishes; because the rays of light becoming stronger, inasmuch as they are united, act upon the retina, thro'

the drop of blood, and then no shadow is perceived.

The cure delivered by the antients was ridiculous, nay indeed noxious.—They advised different collyria, as pigeons blood, warm wine, vapor of aqua vita to be received into the Eye : or acrid ones, as the infusion of fennel, rue, juice of celandine, eye-bright, gall of different animals, that the concretion, which from an error of their theory, they supposed in the Cornea, or aqueous humor might be resolved ;—in the first case the mode of cure was of no use ; in the second hurtful ;—the medicines could not reach the cause.

If blood should be poured out upon the retina, which happens chiefly on account of the great heat of the sun's rays, or a summer journey in the sun, the retina may be hurt, as was the case with Boerhaave—or on account of the blood in a fever being impelled with great force into the extreme vessels, as happens in phrenitic patients whilst nature is vainly attempting to produce a nasal hæmorrhage ;—or on account of a plethora from suppressed hæmorrhoids,

or

or cataemenia ; for the most part from study by candle-light, the use of telescopes, or microscopes, the retina has been weakened, and as it were inflamed, as is the case with astronomers, who observe eclipses thro' transparent glasses not obscured or colored.

In these cases, 1st, bleeding in the arm, foot, or neck should be ordered, and repeated ;—2dly, if the mischief arises from the heat of the sun, the Eye should be bathed morning and evening many times with cold water, in this manner Boerhaave succeeded.—Baths should be used often ; if from night-reading the disease drew its origin, so that the sensibility of the retina, which in this case is usually very great, should be lessened ; 3dly, if a plethora concurs, we must live moderately, and call in those aids necessary to reproduce the cataemenia and hæmorrhoids.—In a phrenzy by an hæmorrhage from the nose the patients are chiefly freed from these phantasmata.

2. *Suffusio reticularis.* L.

RETICULAR SUFFUSION.

In this species, the patients seem to see before their Eyes thin and branching shadows connected one amongst another like a net, and compare these to spider-webs, plucked wool, and things of this sort.

They wandered far from truth, who supposed filaments in the crystalline lens, aqueous humor, or Cornea, and who consequently recite in the history of this disease, that these filaments change their place even should the Eye be immoveable; as La Hire himself thought; for this happens in another variety, viz. in the suffusio scintillans, which has its seat altogether different.

The reticulated suffusion is either fleeting or permanent;—the first proceeds from the obstruction of the arteriolæ of the retina; the second from an error loci, or deviation of the blood into the serous or lymphatic vessels of the retina; nor must we think that this lymphatic congestion merely is sufficient to produce this phantasma, seeing that

that the arteriolæ themselves in healthful men paint no shadow in their systole.

The cure seems to be similar to that of the suffusio myodes. A revulsion of blood from the superior parts ; a diminution of the extreme sensibility of the retina ; bleeding, bland and moist food, glysters, repeated baths, abstinence from study, from the use of microscopes, from continual looking at minute objects, and chiefly light ; whence gold-smiths, embroiderers, engravers, glass-makers, &c. and clerks, amanuenses, and those who are studious, in order to preserve their sight, use glasses of the longest focus, or even plain glass colored, green, blue, or yellow, which mitigate the splendor of a strong light, and in reading or writing receive only the light from the side, or by the shade may be moderated so that the sensibility of the retina may be decreased.

3. *Suffusio scintillans*, Marmayge HIPPOCRATIS ; marmaiges, with some splendores, and fulgura, with the Latins ; Berluê éntincelante, ou rayonnanté.

SCINTILLATING, OR SPARKLING SUFFUSION.

There are three or more varieties of this species, but some are fleeting, or companions of other genera, which therefore do not constitute any species of suffusion ; one is a constant and principal symptom which is properly the *suffusio scintillans*.

A.—*radians*, radiating.—Amongst those of short duration is this suffusion, which differs in its seat, symptoms, and mode of cure from the rest.—For in this, when we see any luminous object, as a lamp, very long lucid rays seem to be stretched from the object itself, some upwards, others downward ; —the object is often multiplied, and at the same time seems to be broad, rather round, and surrounded with smaller rays—this symptom happens to all men in health, if they look at a burning flambeau in the night, removed many fathom from them, the palpebræ

pebræ almost closing, if the head inclines downward the inferior rays vanish ; if it is erected upwards the superior ; if they open their Eyes altogether they all fly from the sight.

But this suffusio radians is a symptom of the epiphora, Ophthalmia humida, and amblyopia, which accompanies great sensibility of the retina, as they are attended with tears, for as in these affections the tears continually overflow, not only the rays seem to be extended upwards and downwards at the sight of the flambeau, star &c ; but also the image of any object in the day time is clouded, looks muddy, which the aqueous collections, springing thro' the Cornea and cilia, excite, as every one in weeping has experienced ; but how the flambeaus appear multiplied is to be enquired into when we speak of the suffusio multiplicans.

The cure is to be sought for from the the cure of the epiphora, and Ophthalmia humida, which are two principal symptoms ; for the suffusio radians ceases on the tears being wiped away.

b.—*Coruscans, vel fulguran.*

CORUSCATING, OR ILLUMINATING SUFFUSION.

This is another suffusion of short duration, which depends upon an external cause, as a stroke of the Eye, or from an internal one, as cephalalgia, vertigo, phrenzy, epilepsy, &c.

It is commonly known, that if the Eye be pressed from the side with the finger even in dark places, in the other part of the Eye a vivid light appears, and that uniform, and semicircular, which recedes with pressure; but if the Eye receives a blow, then a brighter radiating light illuminates the whole Eye; as in blowing the nose forcibly, or also in sneezing a similar coruscation may be observed.

I will relate accurately what I have observed in myself. As often as the cephalalgia attacked me from the southerly constitution of the air, (its humid state) or from a plethora, I foresaw it for some minutes, for coruscations foretel this,—I saw for the space of seven or eight minutes, even the Eyes being shut, lucid lines, as if of

fire

fire, but intersected at acute angles, inflected, and many parallel to each other ; which together form a semicircle ; what is particular in those lines is the continual tremulous motion by which they are agitated ; which motion is much more frequent than the pulsation of the arteries, but sometimes one, sometimes the other of these arches sparkle ;—the circle, the effect of these, is a little larger than the circumference of the whole Eye ; and this phantasma vanishing the pain of the head came on.

Amongst those who are ill, not any thing is more common than these coruscations of the Eyes ; many men found asleep in the night, if unexpectedly rouzed, should they open their Eyes, will behold this manifest brightness or splendor. But in keen and quick passions the Eyes have been seen to grow bright and luminous by those who were standing by ; also in anger, according to Ovid “*Oculus quoq; pupula duplex ful-“ minat, & geminum lumen ab orbe re-“ dit*”.—The Eyes shine strongly in cats struck with the æstrum venereum ; viz. in the month of February when electricity is most powerful.

It

It is not probable that the coruscations proceed from the simple vibration of the nervous fibres of the Eye, for nothing is less adapted to such motion than the nervous fibres themselves, not any thing is softer or more lax, than the retina, which is pulpos, and flaccid. What therefore can emit the light except the force of the electric fluid driven with violence into the canalis petitianus, which happens in coughs, epilepsy, sneezing, rage, and also its concussion and friction, as in a blow or pressure of the Eye ?

How that circular convolution of rays can be excited is not easily to be accounted for, unless from the canalis petitianus being intersected with valves, very aptly resembling the delineation of that light.—But the tremulous motion of the luminous arches, seems to bespeak a similar motion in the crystalline lens, or in the muscular fibres of the corona ciliaris moving the lens ; the cilia and palpebræ are subject to these very quick tremulous motions in the nystagmus, which motion in the uvea is called by Mauchartius, hippus.

c.—*Danaës*

c.—*Danaës.*

AURIPLUVIAL, OR IGNIPLOUVIAL SUFFUSION.

(Thus called from the story of Danaë and the golden shower;) a true suffusio scintillans, which is permanent, has these appearances.—The patient placed in a strong light particularly a person in years, or those whose Eyes are very bright, continually think they observe lucid points, or small spots before them, which fly in different directions, sometimes one way, sometimes another; nor are they agitated by the head being moved, as la HIRE, and his copier BOERHAAVE suppose, but continually if the Eye remains immovable, they seem to fall slowly downwards, like a golden shower, appearing very thick before the Eyes; which always descend vertically, in whatever situation the head is placed; whether erect or laterally inclined.—I experienced this in myself for years, and have observed it also in others, particularly in those who have devoted themselves to night study; and in an invalid who was driven almost to a state

a state of melancholy for many years from that cause.

If we can place any confidence in accounts given by authors, the same men commonly see lucid streaks, serpentine, sometimes branching, shining in the middle, in the margins shaded, which some have taken for a wandering reticulated suffusion ; but the case is different, since in the reticulated species the filaments do not change their situation, and in the axis they are more obscure than in the margin, the contrary to which happens in this suffusion recited by LA HIRE.

I cannot agree with LA HIRE and BOER-HAAVE in concluding that the cause of this disease is to be found in the aqueous humor; it cannot consistently with that opinion be understood why golden, or sparkling showers should descend in every situation of the head.

The cure seems to consist totally on relieving the too great sensibility of the retina, without which there are no phantasmatæ, and at the same time diverting the melancholy attention of the mind, which greatly aggravate the disease.

The

The suffusio Danaës happens often in the use of the extract of white henbane ; but this desisted from, the disease also goes off.

4. *Suffusio colorans.* B.

COLORING SUFFUSION.

This is a disease which veils objects in colors foreign to their nature, black and white excepted, which are not properly called colors.—The colors are seven ; red, orange, yellow, green, blue, indigo, and violet.

A drop of red blood falling upon the retina, and rendering it black, intercepts all light ; whence obscure and black phantasmata : but if the diluted cruor should transmit red rays, the patient will see a red spot, as it sometimes happens all things looked at through glafs appear red.

The light of a common candle is yellow, whence white objects appear by that light, yellow ; blue ones, green ; and pale yellow or straw color, white.

Those who read a long time in the sun soon see the characters tinged with intense redness ; if within the shade of trees, they

look at snow ; whilst the sun shines the snow appears blue.

Those who have their Eyes affected with the yellow jaundice, do not therefore see objects as if they were tinged yellow, but less clear ; because that color, not suddenly intense, affects the Eyes, and then all objects gradually tinctured with that color diluted suffer an equal diminution of natural shade, and from being gradually accustomed to that natural color, they appear to preserve at least the order if not the degree— but if the Eyes should suddenly grow yellow, all objects would as suddenly appear of that color, tho' in a short space of time this image would, from custom, vanish.

VALSALVA observed a man who seemed continually to see palaces beautifully decorated and colored ; it is probable that he had the reticulated suffusion combined with the colored, as the pupil with respect to the crystalline lens might have been too patulous ; whence the Eyes, like the triangular prisms, diffused over all objects the colors of the rain-bow.

5. *Suffusio metamorphosis.* B.

TRANSFORMING SUFFUSION.

This metamorphosis is a change of figure.—Figure is the limit of the extent of objects—Limits of objects extended are changed, if the situation, proportion, number, or magnitude of the parts should be changed by addition, detraction, translation, &c.

A woman in the fits of epilepsy, not only labored under diplopia, but also seemed to see horrid spectres, a bluish green atmosphere around all objects, and illuminated objects themselves much larger than they really were; so that a fly appeared as large as a fowl, a fowl equalled the size of an ox.—The use of castor took away this suffusion, but a vertigo followed which caused all objects to be depicted green.

6. *Suffusio nutans.*

DISTORTING SUFFUSION.

A celebrated physician of Narbonne, eighty years of age, labored some days under a suffusion, by which means all objects appeared to him inflected, flexuous, and bending to

one side or other, so that people who stood before him seemed to have their bodies or legs distorted ; at the same time so inclined to either side, they seemed ready to fall, of which he at first apprized them, and endeavoured to support them ; the affection vanished, but his sight remained more obscure than usual.

§. 2.

7. *Amblyopia crepuscularis* ; amongst the Greeks, Hemeralopia ; amongst the moderns, Nyctalopia ; Visus diurnus, BOER-HAAVE Collect. Acad. tom. 1. p. 507. L.

CREPUSCULOUS AMBLYOPY.

This is a disease in which the vision is obscured and confused at twilight, either morning or evening, in the same place where the \mathbb{A} etopes can see distinctly. \mathbb{A} etopes are those who, like eagles, see things distinctly, near at hand, far removed, in mid-day, or in twilight, &c ; in one word, those of perfect, or the least imperfect sight of all.

Fowls labor under the crepusculous amblyopy, whence, except in a strong light, they

they cannot see those grains on which they feed, and thus go to roost in the twilight.

This disease is opposite plainly to the meridian amblyopia, under which all owls labor; which indeed see but little in mid-day, though in the night distinctly.

This disease two years ago was epidemic in the neighbourhood of Montpelier; chiefly in towns near to any river, as that which ran by Suave, Somediras, and Sanctus Hippolitus, where particularly the soldiers keeping their nightly watch in the open air, the atmosphere moist and cloudy, become hemerolopes.

But since manifold experience has taught us, that they were cured, in whom the superfluous serum was evacuated out of the blood by cathartics, emetics, diuretics, vesicatories, and such like applications, one or two bleedings having preceded; it is very probable that this species proceeded from a redundancy of serum in the sanguineous mass, which particularly relaxed the organs of vision.—It is not certainly difficult to conceive, that from a moist cloudy atmosphere in autumn, the perspirable serum

S 3 might

might be retained in the mass of the blood, and thus become too redundant ;—nor why by the evacuants before recited it might be eliminated, and thus the disease be cured ;—but why that serum should affect the organs of sight, rather than those of hearing, touching, and some others, it is difficult to understand.

Some authors enumerate other species, or rather varieties of this, in which there may be different, nay indeed various phænomena, as the contraction of the pupil, rigidity of the retina, and such like ; but it is by no means clear that they have been accurately observed, on that account therefore they are better omitted.

From what has been said the cure is obvious ;—by every means we must endeavour to restore the natural tension to the retina ; and for this purpose, the superabundant serum should be absorbed thro' the bibulous veins, and derived to those strainers of the kidneys, intestines, skin, to the ulcerations made by blisters behind the ears, exsiccating and diaphoretic food lending at the same time its aid.—Draſtic emetics may in certain cases

cases do more harm than good, since life from this disease is not endangered ; but from emetics, unless the subjects are robust and inert, that the pituitous can be cured, is much to be feared.

BOERHAAVE recites a variety of this disease which depends upon an immoveable contraction of the pupil, whilst at the same time the retina enjoys its usual sensibility ;— in an healthful state the aperture of the pupil answers reciprocally to the sensibility of the retina, and therefore it is a contradiction to think that the pupil is not dilated in the same proportion in which the intenseness of light decreases ; nevertheless it may happen that the aperture of the pupil, because of the singular insensibility of the uvea, may not observe the same law, and then at that time there is a disease which it is necessary should be cured, as the antecedent cause of the disease is a rigidity of the uvea, but not an insensibility. The reason why I recite this is, because, as proved by HALLER, if the uvea should be pricked with the point of a needle, which I saw in the operation for a cataract, and HALLER himself tried in animals, the

uvea moved not at all ; whence we may readily infer that it is supplied with none or very few nervous filaments.—But BOERHAAVE knows no remedy for this species, particularly if, as is usual, that rigidity happens in old men.

But that illustrious professor adds some things relative to a young Englishman, who saw very well in the day time, so long as the sun was above the horizon, but, at its setting, clouds appeared before his Eyes ; after its setting, to him all was darkness ; indeed even in his bed-chamber illuminated with a number of candles, nor by the light of the moon however splendid, to which the pupil was immoveable ;—the reason of this phænomenon is not from any connection between the light of the sun, as BOERHAAVE thinks, and parts of the Eye itself, nor vapors ascending in the night agreeable to the opinion of BRIGGS ; but it is from the immense difference between the splendor and activity of the solar light, and that of a candle, and the moon. The force of the solar light to the force of the light of a candle at sixteen feet distance, according to BOU-

GUER, is as 11664, to 1; and to the light of the full moon as 374000, to 1. D. EU-
LER, Mem. de l'Acad. de Berlin, anno 1760,
p. 299; there is no wonder therefore, if
the force so much greater should be suffi-
cient to strike the retina which so much
less force did not effect.

Dr. SAMUEL PYE has enumerated, in the Lon-
don Medical Observations, the accounts given by
patients of the nyctalopes; some of whom say,
that the nyctalopes are those who see by night,
others that they see better by night than day, and
if the moon shines they are blind. Some again call
those nyctalopes, who see more obscurely in the
day-time, at the setting of the sun more clearly;
but when it is night much better; or on the con-
trary, by the day they see little, but in the even-
ing, or at night, they are blind. Others, that they
see by day, but at night, or in the evening be-
come blind; that they see better at night than
by day.—CELSUS says, that the patients, by day,
see very well, but at night they are blind. These
contradictions the Doctor attempts to reconcile by
referring them to the class of intermittents, the
paroxysms coming on at different periods, some
in the day, others in the evening; and this sur-
mises

mise seems to arise not only from the intermissions he observed in the disease, and the account given likewise of a case by Dr. PARNHAM, but also from its yielding to the Peruvian bark.—The conjecture it must be confessed is very ingenious, and the reasoning plausible, if we are allowed to have recourse to analogy; for certainly the retina itself may be subject to the same periodical attacks as other parts of the human machine, and there are few practitioners who have not seen local intermittent complaints of the nervous class. But this confusion might be done away if we would be careful in making proper distinctions with respect to the disease and its principal symptom.—They should be marked according to their appearances; when the sight is only partially obscured or diminished, it should be considered as an amblyopia, when totally lost, an amaurosis.

Now that disease where the sight is only diminished in the night should be termed, nocturnal amblyopia, in the day, diurnal.—When a total loss of sight is sustained, the same distinguishing epithets might be added to the amaurosis, according to the times of the attack.

8. *Amblyopia absoluta*; Amblyosmos HIPPOCRATIS; Amblytes, ARETÆI; Visus obtusus, BOERHAAVE; Visus confusus, of some authors among the French; Vuë basse, foibleſſe de Vuë, mauvaife Vuë.

ABSOLUTE, OR COMPLETE AMBLYOPY.

The myopes, presbytæ, and the rest of amblyopes treated of above, in some certain distance and position of the object, can see distinctly; and their sight is not obscured, except relatively to other distances, times, and situations; but this species imports an absolute obscurity of sight, in every place, time, and situation. The myopes, presbytæ &c; as they can see with spectacles acutely, may safely be without them, but the absolute amblyopes cannot.

This seems to depend on the diminished sensibility of the retina, such as commonly happens to all men about the age of fifty, and as they grow older increases;—chiefly in those who are concerned in employments in minute objects, who write by night, and use their Eyes improvidently.

The horopter, or bounds of distinct vision,
is

is shortened every day, by two or three inches within every ten years. Objects attentively considered, appear to them confused; characters of books seem to be doubled, moved, and decussated; the Eyes wearied are fretted, and shut; objects are removed from the Eyes as in presbytia, particularly if the afflicted have undergone the operation for a cataract. The pupil, or to speak more properly, the uvea is scarce moveable, a sudden transition being made from dark into light, which is a symptom of diminished sensibility of the retina.

In this disease the common people attribute it to repeated bleeding, women to frequent child-bearing, but few to encreasing age; useless remedies from various medicines are proposed, which are contradictory to each other; for some oculists recommend resolvents, some extol water merely, rather cold, and say that from spirituous applications the retina is too much exsiccated; but the use of spectacles, in every one's opinion, is necessary, as by the help of these the rays collected affect the retina more forcibly;— whence clearness is restored to the sight, and

and with that, distinct vision, which advantages are to be expected from them alone.

The horopter, or bounds of vision, is the smallest distance from the Eye to the object, which is seen distinctly; the distance is greater in proportion as the object is larger, and the light more intense.—Commonly the limits of vision is taken from the usual distance between the Eye and the characters we write; and that amongst the ætoptes is about eight inches; but the horopter for larger objects, as for distinguishing the faces of men, some feet.

Those who accustom themselves to older spectacles, as those of shorter focus, they are forced every ten years to change them for still older, which is very inconvenient, for the light is so much the more curtailed, viz. those who use assistant glasses have a focus of six feet, they read best at the middle distances between eight inches and six feet:—but those who use spectacles of six inches, they cannot distinguish characters placed beyond six inches, unless they should be much larger.

Hence

Hence comes this rule of the greatest moment, that in fact we should first exhibit junior spectacles or assistants ; and not, unless obliged, have recourse to the older, and then only by degrees—those not accustomed to spectacles should try many, and use those in the first place, which exhibit the objects clear and distinct, but not those which encrease the sensibility, if they are a double convex, or diminish, if a double concave, they are necessary for the myopic ; 2dly, those which weary the sight in the least degree. Besides perspicilli, or nasal spectacles, which are more convenient, or hand-glasses—the amblyopes use, with advantage, opera glasses, formed of a double convex object glass, and a double concave eye glass of smaller diameter ; but the tube should be shorter for the myopes, longer for the presbytæ ; all Eyes are equally assisted by these glasses, seeing that they can exhibit the objects clearer and more distinct.

§. 3:

A MAUROSIS,—Gutta serena, of the Arabianis; Cataracta nigra, of the Germans; Offusatio, CORNARII in Ætium; Cæcitas MERONI Directæ; Amblyopia RUMPHII, Compend. Medic. Goutte serene.

-AMAUROSY, SUPPRESSED OR ABOLISHED VISION, WITH PUPILLARY IMMObILITY, AND OCULAR INOPACITY.

This disease has for its principal symptom a suppression of light, and immobility of the pupil, without any sensible opacity of the Eye.

It is called gutta, because it has been thought to arise from a dropping of the lymph;—serena, because it does not cloud the Eye in the same manner as a cataract, and often a caligo.

It differs from the amblyopia absoluta, from the total suppression of vision;—if the sight can by no means be recovered, it is called abolished, otherwise, suppressed.

In the amblyopia absoluta, and caligo, the patient

patient at least discerns light from darkness, tho' not in an inveterate amaurosis.

The principle of an amaurosy is situated in the brain at the thalamus nervorum opticorum, in their passage, or wholly in the retina,—therefore sensibility is wanting in the Eye, in a cataract the light is denied ingress into it.

The amaurosy attending syncopes, and comas, arises, because the mind having suffered from the danger of the heart and brain great commotions, perceives not the impressions of light; or in other words, we should rather say, that the mind from the sudden affection of the heart and brain, occasioned by the circulation of the blood being impeded almost to total cessation, is deprived of the means of having any sensations of light conveyed to its perception.—In other cases the cause of an amaurosy is the imperviousness of the optic nerves, either in the thalami, or in the whole retina, or the nerve may be obstructed, compressed, divided, &c. in its passage.

If the sound Eye is shut, and the blind one opposed to the light, the pupil is in no wise contracted, sometimes it is dilated, and this

this is the only motion which remains, and indicates a perfect amaurosy.

By how much less is the mobility of the pupil in an amaurosy, by so much greater is the diminution of sight, so that if a fourth or third part of the motion of the pupil remains in the light, a fourth or a third part of the vision will also continue.

The phlegmatic, cachectic, aged, those with weak nerves, and who have been subject to severities, or excesses, and persons laboring under irregular or suppressed periodical discharges, as the catamenia in women, the haemorrhoids in men, &c. are the principal subjects of this disorder:—in all these cases arising from any known cause we should pay particular attention to that source, and adapt our remedies accordingly. Vapors of hot spirits of wine, or coffee, passed thro' a tube two or three times a day are considered as useful external applications, nor have they failed of success sometimes when joined with a cooling light diet, and repeated purging.—Sternutatories are sometimes of singular service; aromatics, carminatives, and attenuants, particularly mercurials, in small doses, are recommended.

Some advise volatils, chalybeates, mercurials,
T cephalics,

cephalics, and nervous medicines ;—cupping also with scarifications on the back part of the head has formed a cure.—Salivation has also succeeded ; small doses of calomel, or the solution of corrosive sublimate in a diætic decoction may be persisted in for some time, and will answer more agreeably and safely the purposes of salivation.

MEAD considers this disease as owing to three causes, the most common of which is an obstruction gradually formed in the arteries of the retina by fizy blood ; sometimes to a palsy of the nerves of the same membrane, and also occasioned by a pressure on the optic nerves, either by an extravasation of a gelatinous humor, or by a hard tumor formed upon the place, where they pass from their thalami into the Eyes.

He endeavours to shew how these species may be distinguished.—A gradual dilation of the pupil is a symptom of an obstruction of the blood vessels by a fizy blood.

A palsy of the nerves, with which they are frequently struck at once, seldom or never occasions this dilatation ;—but the pressure on the optic nerve, either by an extravasated humor, or a tumor gradually encreasing, is attended with a wider pupil.—The second and third species may be deemed incurable ; tho' there may be some faint hopes of relieving that sort which proceeds

from

from a palsy of the retina, by anti-patalytic remedies, of which the principal are aromatics, chalybeates, and fetid gums. But in removing obstructions of the vessels he advises, first of all, bleeding both from the arm, and jugular vein, and that repeated according to the degree of the disease; cupping glasses also with deep scarifications should be applied under the occiput; in order to let out blood this way from the lateral sinuses of the brain; cathartics should be given to purge off the gross humors, for this purpose calomel is most eligible joined with other purgatives, or rather taken by itself, and some gentle cathartic a few hours after.

This method often succeeds when the complaint is recent, or beginning; but if of long standing, salivation raised by mercury given internally is necessary.

Electricity has been singularly successful in cases of amaurosy, in one case recited by WARE a gutta serena was cured by only three electric applications, each of which was continued about a quarter of an hour. The mode of electrifying was first by carrying a stream of electric fire thro' the Eye, and afterwards by drawing sparks from all the parts which surround it.

We have some cases related by Mr. HEY in the Lond. Medic. Observations, tho' they differ from the above in the following material circum-

stances.—This disorder came on more suddenly than those described by Mr. HEY; the blindness was more entire, the Eye-lids more affected, and the cure more speedy.

Electricity chiefly promises to be of the greatest use in recent cases of amaurosy, in those of two years, or longer standing, it has not often been successful, notwithstanding it should be tried, and persevered in, since we have one case of three years continuance relieved by it, as related by Mr. HEY.

9. *Amaurosis venerea*, ZACUTI Praxis, Cent. 5.

Obs. 49; BALLONII Paradigmata 7. vel Sepulchretum BONETI Obs. 4; also BOERHAAVE de Morbis Oculorum. L.

VENEREAL AMAUROSY.

This species brings on either hydatids in the retina, which takes away the sight, and Boerhaave thinks that it has been cured by mercurial inunction; or excites exostoses pressing the optic nerve, which is incurable; or creates a steatoma in the brain; according to the observation of Ballonius. Zacutus saw this species come on a few hours after impure

impure coition, with little ulcers, and vari of the face.—An Englishman, by a mercurial salivation, cured of an amaurosis, saw for some time all objects doubled;—SMITH's Optics.—This species is attended with pain and pervigilium.

PLENCK describes this disease—a blindness without any apparent fault in the Eye, arising from venereal virus;—he also divides it into two species.

1. AN AMAUROSY FROM IMPURE COITION.

This was seen to arise a little time after coition; he says, ZACUTUS observed it to appear a few hours afterwards, with ulcers and vari of the face;—in this case the purging and gummosus mercurial pill should be had recourse to.

2. AN AMAUROSY FROM AN UNIVERSAL LUES.

This species is attended with pain of the Eye, and pervigilium; which arises from an exostosis pressing the optic nerve, or takes its origin from venereal hydatids of the retina and optic nerve; it is said to be cured by salivation.

The mercurial gummosus pill should be tried, or corrosive sublimate with a decoction of mezereon.

BOERHAAVB, HEISTER, BONNET, and SMITH in his Optics speak of cases of amaurosy cured by salivation, as also does the celebrated SCHMUCKER.

10. *Amaurosis phlethorica*—NENTERI Tabula, 50; Gutta serena a menostasiâ, St. YVES page 343; Amaurosis gravidarum St. YVES.—A suppresso Hæmorrhoidum fluxu. the same author; menstruo, &c, page 338.

PHLETHORIC AMAUROSY.

This is attended with symptoms of plethora; sometimes it begins with a troublesome pain of the head, deep-seated, a painful weight residing in the fundus of the Eye.

This species is sometimes cured.—JUDEUS, a physician at Burdigala cured many by opening the frontal vein, and permitting an efflux of blood till it stopped spontaneously; it is often of service to open the jugular vein after the cure of acute fevers.

St. YVES

St. YVES recommends bleeding in the foot and emenagogues; then viper broths, millepèdes, and ophthalmic water are to be administered.—That species of amaurosis is to be referred here, which follows the sanguineous apoplexy, and acute fevers.

In all cases where a sanguineous plethora is prevalent, a free use may be made of the lancet, and those evacuations should be again reproduced should this disease continue from their obstruction.—Bathing the feet in warm water, semicupia, &c; and in cases of the hæmorrhoids, when we want to solicit their return, the application of leeches to the hæmorrhoidal external veins, and round the anus, should not be neglected.

If a serous plethora should exist, purges, and diuretics, with blisters will be proper, emetics may also be administered if indicated by any disorder of the stomach.

After the necessary, and sufficiently copious evacuations have been procured, chalybeates and bark, with bath waters are to be persisted in, and electricity will help to expedite the cure.

II. *Amaurosis exanthematica*—A Scabie suppressâ, BAGLIVI, Pag. 215; Ephem. nat. cur. ab. Achoribus repressis, HOFFMANNI Tom. 3. P. 339; a Plicâ resectâ, vel retentâ—STABEL, Hist. 6, 5. L.

EXANTHEMATIC AMAUROSY.

This species deduces its origin from exanthematous complaints, either repelled or retained.

In this place may be set down the amaurosis, which depends upon alcalescence, and acrimony of the humors; in which therefore baths, acid waters, diuretic and diluent ptifans are recommended, as milk, whey, millepedes, &c.

Where, from the surface of the body, acrid humors are repelled, they should be carried off by aperitives and proper sudorifics, and as commonly this accident happens from a general weakness in the system, that should be supported by cordial corroborants, and such evacuants persevered in as least weaken the tone of the stomach, or the nervous system in general—if periodical evacuations are suppressed, their return should be promoted, but should that be impracticable,

ticable, proper artificial discharges should be substituted, as setons, perpetual blisters, issues, &c.

12. *Amaurosis-a narcoticis*—Raii Synopsis plantarum de Stramonio.

AMAUROSY FROM NARCOTICS.

The juice and leaves of the stramonium, *thorn-apple*, applied, create a mydriasy, and amaurosy.

In the Molucca Islands, the amaurosy is familiar to strangers, which is attributed to their eating of hot barley, believed in these regions to throw out a narcotic vapor, according to BONTIUS, who, in this species, recommends the liver of the squali, by some thought to be scate, called lamia.

It is known that acids, as vinegar, taken internally, is an excellent antidote for these poisons.

13. *Amaurosis Foricariorum*—RAMAZINI de
Morbis Artificum. L.

FORICARIOUS AMAUROSY, OR FROM
CLEANING OF PRIVIES.

Whoever stays in privies whilst they are cleaning, when they have remained four hours, unless they retire, as well as keep the Eyes free from light, and stay at home with them shut for twenty-four hours, and wash them with warm water, become forthwith blind—and without this caution nothing is more frequent among the people of Padua, than for those cleaners of privies thus to become blind.—The Eyes pain them in the privy, grow red, and a little cloudy—but that most offensive stench neither wounds the nostrils, creates nausea, nor hurts any other part except the Eyes.

That this misfortune may be avoided, concave peripicilla adapted with great judgment, should be applied to the Eyes, such as are used in luscity and strabismus; but the glass should be most accurately closed.

§. 4.

14. *Strabismus Buffoni*—*Mem. de l'Acad. Scienc. 1743, 5. Spec. PORTERFIELD, Edinburgh Essays, Tom. 3. P. 298. L.*

BUFFON'S STRABISM.

The name of this is taken from the discoverer.

This species depends upon the weakness of one or other of the Eyes; as because when the distance may be unequal to which the sight of both Eyes is to extend, we are accustomed to direct the stronger Eye to the object, and omit the exertion of the weaker, for it has no use in discerning objects when they are removed to a distance requisite for the other. Thus if the right Eye cannot see beyond half a foot, and the left Eye beyond a foot, we look at objects with one Eye only, hence a strabismus, which is very difficult to cure.

The debility of either Eye is either natural, then incurable, or depends on a stroke of a palsey, or epilepsy, &c. See the history of these diseases, and modes of cure.

The varieties of the strabismus are,

CONNIVENS

CONNIVENS—which is present when the axis of the Eyes decussate one another.

DIVERGENS—when the axis of the Eyes do not converge, but form in level lines.

INEQUALIS ALTITUDINIS—when one Eye looks upward, the other downwards; this is most unpleasing to the sight.

SECTION THE ELEVENTH.

THE CHOROIDÆAL MEMBRANE.

§. I.

1. *Ophthalmia choroidæa*—Ophthalmie interne de la Retine; ou de la choroide. A.

CHOROIDEAL OPHTHALMY.

THIS is known from the Eye's incapability of bearing light, a constriction of the pupil, an epiphora, with or without redness of the conjunctiva; to these may be added obstinate pains of the hemicrania.—This species almost always happens on the ninth day after the operation, by which DAVIEL and JANIN extract the cataract by the circular incision of the Cornæa, and which continues about fifteen days, and the last days when the patient then elevates his Eye-lids he sees objects as if sprinkled over with snow. If the patient dies some days after the operation, the vessels of the choroidæal membrane are found red, obstructed, and sometimes

times the vitreous humor changed into a puriform jelly.

When this proceeds from internal causes, the same method should be used as in the chemosis; but towards the end it is of great use to drop into the Eye some of the distilled camphorated water;—but after the operation, either for a cataract, empyesis, or unguis, the inflammation abates either by the use of flea-wort, fenugreek, quince water, or the albuminous collyrium—i. e. the white of an egg shook up with rose-water till it raises a froth,—and diffused over a portion of lint, with which, being cold, the Eye is to be fomented immediately after the operation; and repeated three times a day; a bandage must then be applied for two days, in order to prevent the ejection of the vitreous humor, if a cough, sneezing, or vomiting should supervene.

SECTION

SECTION THE TWELFTH.

BULB OF THE EYE.

§. I.

1. *Exophthalmia purulenta*.—MAITRE-JAN,
Part. 2. Chap. 6. *Exophthalmia hypopy-
ica*, BOERHAAVE.

PURULENT EXOPHTHALMY.

THE hydroptic exophthalmy terminates in this species, if the inflammation, arising from acrid serum poured into the Eye, runs into suppuration—after very severe pain, inflammation encreased externally and internally, great tumefaction of the membranes forming the white of the Eye, inversion of the palpebræ, an hot and acrid epiphora, at length the Eye grows muddy, and a suppuration, as also a destruction of the internal parts ensues.

In process of time the Eye bursts, and is exulcerated with efflux of pus, alleviation of pain, a successive deterion of the parts, a diminution

minution of the ball of the Eye, and at last a cicatrix.

This species requires the following mode of cure,—the pus being perfectly formed, if there should be a very violent inflammation, and most excruciating pains, the Cornea should be opened in that part where the confined pus appears to be forming a passage for itself ;—or in the most dependant part, if the matter points not particularly to one more than to another—by that means a stop will be put to those acute pains arising from the procrastination of spontaneous rupture—a lancet being pushed beyond the uvea, the pus evacuated, and the Eye cleansed by abstergent collyria, a cicatrix is at length formed.

3. *Exophthalmia cancrosa*—Cancer de l'œil,
Par. 2. Chap. I.

CANCEROUS EXOPHTHALMY.

Viscid blood obstructs the vessels of the membranes of the Eye, and makes them very thick, and as it were, fleshy ; the inflammation and pain in the beginning is moderate, but the disease gradually encreasing, they

they are also augmented ; the sight is lost. Grievous is indeed a disease of this complexion, as a cancer of the membrane of the Eye, which, altho' sometimes it may not be exulcerated, nevertheless in time occasions severe pains with a fever, and terminates in death.

Health, or life can only be preserved by extirpation. See St. YVES.

Dr. OLAUS ACREL extracted a cancerous Eye, which had acquired an enormous bulk ; —he first made an incision of an inch in length; thro' the external angle, and after dissecting the bulb from the Eye-lids, passed a thread thro' it, by which means he was enabled to elevate and extract it with ease—the Eye by degrees was filled with a fleshy substance, and five weeks after the operation the patient perfectly recovered.—The extirpated Eye afforded no marks of organization. Med. Journ. Lond. V. 3. P. 7.

3. *Exophthalmia traumatica*—MAITRE-JAN,
Par. 2. Chap. 10. D.

TRAUMATIC EXOPHTHALMY.

The Eye being struck by a stone, cricket-ball, club, or any weapon similarly mischievous,

U

ous,

ous, is not only bruised, with a rupture, and confusion of the interior parts ; but also the common membranes, with the muscles, and other connecting bonds on which the healthful state of the organ depends, being ruptured, it sometimes rises from its orbit, and falling down, is pushed out more or less ; indeed in very violent contusions, the support of some of its parts, yet entire, depends upon the remains of those which were ruptured.

In diseases of the slighter nature an agglutination, or conjunction of the ruptured parts is to be attempted, the Eye being replaced within its orbit—but in those of a more severe kind, because an union of the separated parts is impossible, the few vincula which remain being cut asunder, and the hæmorrhage restrained, we must subdue the fever and inflammation by bleeding, refrigerating glyf-ters, thin, spare diet, suppuration having come on, the parts will be cleaned by pus, and a cicatrix formed in proper time.—See MAITRE-JAN.

4. *Exophthalmia critica*—D. CHAPTEL observante. D.

CRITICAL EXOPHTHALMY.

This was observed in a man afflicted with an universal tetanus, which was judged to arise from the effect of morbid matter falling on the Eye ; the bulb of the Eye swelled in a manner most wonderful to the size of a man's fist, rising out of the orbit, and pouring from its rupture, most copiously, ichor, mixed with pus—this requires the remedies of the Exophthalmia purulenta.

5. *Exophthalmia a Conatibus*.—Ecpiesmus ex nisu parturitio, PAULI ÆGINETÆ, Aëtii ; Ecpiesmus ex certamine Athletico, Aëtii. D.

EXOPHTHALMY FROM STRONG EXERCISES.

Sometimes the Eyes are so far pressed outward, that they remain prominent. Protuberances of the Eyes happening from the efforts of labor from child-bed pains, are often cured by the succeeding discharges, and lochia. It is therefore necessary that we should endeavour to assist these.

6. *Exophthalmia a Steatomate.*

STEOTAMATOUS EXOPHTHALMY.

There is a curious cure recited in the London Medical Observations, of an Eye extracted by Mr. JOHN HUNTER, in which not the least remains of the humors were found, nor any of the coats, but the sclerotica, which was filled in every part, except in the anterior chamber, with a steotomatous kind of substance, and a loose spongy flesh, whose fibres had no particular direction; there was likewise a considerable quantity of calcarious earth lodged in the different parts of it. At first the Eye was considerably diminished in size, but in process of time, before extraction, much increased. From a similar affection of the other Eye the patient died; and from the appearances after death, on examining it, there was reason to conjecture that the disease began in the vitreous humor—upon which it is supposed the patient might have probably been saved, had that humor, in the early period of the disease, been evacuated. See the particulars, Lond. Medical Observations, vol. 3. page 120.

§. 2.

7. *Amaurosis traumatica*—see ANT. MATE-JAN; L. a vulnere Oculi Obs. 17, 18. Centur. 5. HILDANI Observ.—A Commotione Capitis. HILDAN. Centur. 5. Obs. 8. SCHENCKII, Obs. pag. 168. Ex Bombardæ explosione. SCHENCKII, p. 168. ex Vulnere Capitis. MARCELL. DONAT. Histor. Mirab. L. 2. pag 76.

TRAUMATIC AMAUROSY.

This complaint happens suddenly either from a wound, or blow, and then it arises from inflammation, and compression made by the blood, or by the globe of the Eye distractèd within—or a division of the nerve. See Heister on Wounds of the Eye.

But if afterwards an amaurosy creeps on by degrees, it belongs to the paralytic species, which requires a different mode of treatment.

HILDANUS saw it arise from sneezing.

SECTION THE THIRTEENTH.

THE OPTIC NERVE.

§. I.

I. *Suffusio dimidiata objecta*.—ABRAHAMI
VATER *Dissertatio de Visū Vitiis, 1723,*
Wittembergæ.

DIMIDIATING SUFFUSION, OR CREATING
A DIVISION OF OBJECTS.

THIS author relates three cases of this disease, and deduces the theory from a compression on the brain, and a supposed decussation of the optic nerves—See Collection Academ. tom. 5. p. 292.

DIPLOPIA

§. 2.

DIPLOPIA—*Suffusio multiplicans ; visus duplicatus* of Authors ; *Bèvuê*—Double Vuê.

DIPLOPY, OR DOUBLE SIGHT.

This is a depravity of sight by which the same objects appear double, multiplied, or often repeated.

That symptom is almost always of short duration, and we bear it freely, as in experiments, whether in that case looking with one or both Eyes.

So long as the object is not within the distance of distinct vision, two images opposite to one foramen or aperture, and having fallen upon the Eye, are not united in the retina, but in distinct places ; and therefore they have not the optic point as a centre, whence the image appears double. The optic point is a circular portion in the bottom of the Eye, whose center the optic axis occupies ; but as often as we look at any object with both Eyes, so often, unless there should be some defect in the organs, we so

turn the Eyes, that each axis of the Eye concurs in the same point of the object ; and we have been taught by long habit, our sense of touching chiefly directing us, that a double image answers to one object, whence so often as an image falls upon the optic point, so often we judge that object single ; but if a double image should fall upon the same Eye, and not concur in the optic point, then the same object appears to us to be seen in two different places, and therefore to us it appears double.

2. *Diplopia pyreætica.*

FEBRILE DIPLOPY.

This is a symptom sometimes attending fevers and acute pyrexias, in the height of the disease, as often particularly as the complaint occasions delirium, and phrenzy—for the optic axes are irregularly changed, nor do they converge to the same objects ; nay indeed they so suddenly diverge, and are moved, that the patient sometimes when there is one physician, fancies that he sees more.

In

In that case bleeding and sedatives, which take off the delirium, remove the diplopia.— Among the sedatives, the Sal Sedativum Hombergii in this instance is the most excellent.

3. *Diplopia a debilitate*—BONETI Sepulchret.
Observat. 22. Casu 43, 44.

DIPLOPY FROM DEBILITY.

This happens at the approach of death, and in convalescents.

4. *Diplopia remotorum*—AQUILON: Opticæ,
pag. 346.

PRESBYTAL DIPLOPY.

In this variety, objects placed at a distance, not those near at hand, appear double.

5. *Diplopia a Contusione*.—THUMMIG, Act. Suecie, 1721, pag. 230.

DIPLOPY FROM A CONTUSION.

6. *Diplopia a Terrore*.—ABRAH. VATER
Dissertatio, de Visu Vitiis, 1723.

DIPLOPY FROM FRIGHT.

7. *Diplopia*

7. *Diplopia à Temulentiâ.*

DIPLOPY FROM INEBRIETY.

§. 3.

8. *Amaurosis pituitosa*.—Amaurosis a Cattarrho, St. YVES; ab Aquâ in Cerebri Cortice, sinubus; BONETI Sepulchretum de Oculorum Affectibus, Obs. 9, 12, 15, 7. L.

PITUITOUS AMAUROSY.

This affection either attends, or succeeds an apoplexy, palsy, or pituitous hemiplegia.

It indicates cathartics, emetics, vesicatories, setons, issues in the neck; the vapor of spirit of wine may be received into the Eyes; electrifying forcibly to weeping.

In phlegmatic habits, and when rheumatism is the cause, or a palsy suspected, valerian may be mixed with bark, and taken freely, with an infusion of any aromatic herbs, with forty drops of tinctura fuliginis. The bowels should be kept lax with small doses of calomel united with aloetic purges—blisters should be applied over the supra-orbital aperture, thro' which nerves pass, and spread on the forehead, and they as well

well as issues should be kept open as long as possible.

9. *Amaurosis scrophulosa*—Philosoph. Transact. tom. 9. pag. 257—Ex Steatomate in Cerebro BONETI Obs. 10. Ob vesicam nervis opticis incumbentem, Id. Obs. 2; A Tumore globoſo nervis Opticis incidente, Id. Obs. 1. A calculo juxta nervum opticum, Id. Obs. 2. L.

SCROPHULOUS AMAUROSY.

I saw in scrophulous children twice an amaurosy suddenly attacking them—on disfection I found a strumous gland fixed on the optic nerve.

10. *Amaurosis congenita*. St. YVES, Ch. 27,
pag. 345..

CONGENITAL AMAUROSY.

Infants even are born blind, which is only discovered as they advance in age;—it is singular in this species, that the pupil, tho' immoveable, is not more patulous than it is in that age amongst the ætoptes—it appears therefore as a torpor of the organs.

Two

Two were cured by the use of ophthalmic water, which, from its spirituous parts, restored tone to the Eyes.

11. *Amaurosis intermittens*.—STORCK. Annus Medicus. P. 75. P. L.

INTERMITTENT AMAUROSY.

From a quotidian fever an amaurosis returned every day, and receded after a few hours ; it was cured by cortex Peruvianus.

FELIX PLATERUS saw it arise from an ardent intermittent—but that which depends upon the synochus, belongs to the plethoric, when by bleeding it may be cured.—Yet St. YVES says, it rarely can be conquered.

12. *Amaurosis rachialgica*.—SPANGERBERGII de Colicâ Saturninâ. CL. BONTE, Journ. de Med. Nov. 1761, Pag. 407. Avril, 1764. Pag. 346. ex colicâ. D, FABRE.

RACHIALGIC AMAUROSY.

It is that species which comes upon the rachialgia, or colic, from vegetable or satur-

nine substances ;—and which depends upon the same principle as the paralyfis.

In this complaint topical applications are useleſs, but emetics are of service, according to St. YVES.—After bleeding in many species as in the ſerous, or hydrocephalic ; in the intermittent ;—this species is almost al-ways attended with ſomnolency and stupor ; a ſupervening hæmorrhage is favourable.

13. *Amauroſis hysterica.* St. YVES, P. 347.
Ch. 28.

HYSteric AMAUROSY.

This happening in hysteria, is fleeting, as the common people attribute it to vapours ascending into the head, because hysterical people fancy they ſee a cloud, or smoke, before their Eyes ; and I have more than once ſeen, that this diſease appearing, the convulsions of other parts have ceaſed.— This species continues only a few hours, fel-dom days.

14. *Amau-*

14. *Amaurosis exhaustorum.* LOMMII Obser.
fervat. de Tabe dorsali.

AMAUROSY FROM DECAYING NATURE.

15. *Amaurosis arthritica.* Journ. de Med.
tom. 21. p. 227.

ARTHRITIC AMAUROSY.

This is allied to the rachialgic amaurosy, but may be distinguished from that species by the preceding paroxysms of the gout; it is cured by bleeding, epispaistics to the feet, and a return of the podagric pain.

Observe.—In order that we may be able to judge of the quantity of vision of the Eye, let the sound Eye be closed, and the diseased one be inspected, opposed to the light; if the hand, at that time placed over it, is now taken away; or if, the palpebra, now pulled down, and that slightly rubbed with the finger, the Eye being suddenly opened, the uvea should be so contracted at the light that the pupil becomes less by half, half the quantity of vision remains;—if less by a third

third part, a third part of visionary power subsists; if it should be altogether immovable, for the most part no sight is left, unless in very rare cases.

In the London Medical Observations, vol. 3. p. 369. we have an account of an amaurosy proceeding from the bite of a mad dog.—And in the Medical Commentaries of Edinburgh, vol. 5. p. 241. another cured by the arnica montana, or the flowers of leopard's bane, in strong decoction, which arose on a patient's recovering from an epidemical petechial fever. Eight other cases are said to have been cured by the same remedy.—In the cure first mentioned—blisters were applied to the head and back without any advantage—the patients weakness prevented the use of powerful evacuants.—A strong decoction of arnica was prescribed on the 7th of December. In this case the remedy induced a gentle diaphoresis.—On the 11th a delirium, which till then had prevailed, began to disappear—and the patient could distinguish light from darkness.—On the 16th both Eyes appeared natural—vision was perfectly restored, and the patient was well in every respect. The remedy was continued to the first of January, and the woman was dismissed—cured.

SECTION

SECTION THE FOURTEENTH.

THE MUSCLES OF THE EYE.

§. I.

1. *Exophthalmia a paralyti.* MAITRE-JAN. Par. 3. Ch. 2.

PARALYTIC EXOPHTHALMY.

THIS species is owing to a paralysis of the muscles, drawing the bulb of the Eye inward, or the recti muscles of the Eye, the oblique being in an healthful state.—See the symptoms and cure of the palsy, from whence you will be supplied both with the diagnosis and theræpeutic part belonging to this species.

2. *Exophthalmia a Strangulatu*—Ecpiesmus ex Strangulatu. PAULI ÆGINETÆ, ÆTII.

EXOPHTHALMY FROM STRANGULATION.

Sometimes the Eyes are pushed outwards, and squeezed in such a manner, that they remain

remain prominent.—In those to whom this disease happens from strangulation, opening the vein of the cubit is only to be depended on.

§. 2.

3. *Diplopia a Spasmo.*

SPASMODIC DIPLOPIA.

From a spasm of the abductor muscle of the left Eye.—WILLIS de Anima Brutorum, Cap. 15.—I saw it in an epileptic patient.

4. *Diplopia a Paralyfi.*

PARALYTIC DIPLOPY.

From a palsy of the muscles of one Eye.—PLATER. Observ. Lib. 1. P. 132.

5. *Diplopia ab Aencyloblepharo.*—LANGII, Epistol. 7. Lib. 1.

DIPLOPY FROM PALPEBRAIC COALESCENCE.

6. *Diplopia a Catarrbo.* FORESTI, Lib. 2.
Ob. 39. AQUITORII Opticæ, p. 346.

CATARRHAL DIPLOPY.

This affects the muscles of the Eye, and the Eye itself from defluxion, and makes the disease symptomatic.—See Cephalalgia Catarrhalis, Sp. 10.

§. 3.

7. *Amaurosis a Spasmo.* L.

SPASMODIC AMAUROSY.

This is that which a spasmodic and painful constriction of the annulus moderator of VALSALVA excites.

It is observed by anatomists that the four recti muscles, and the greater obliquus arises from the apex of the orbit around the optic nerve, which they surround; but they, contracted by a spasm, so compress the optic nerve, that it becomes impervious to the nervous fluid—and this is the species of amaurosy which in the first place suddenly happens;

happens ;—2d, begins with a violent pain—3d, which accompanies spasmodic hysterick affections ;—4th, which arises from either of the orbital nerves being hurt, and from thence the annulus moderator is convulsed ; as observed by VALSALVA, Diff. 2. No. 11.

Severe head-ach hath brought on this species—SCHENCKIUS de Cæcitate, Ob. 5.—A calculous sympathetic nephralgia hath excited it also—ADOLPH. in Ephemerid. Nat. Curios.—Different painful diseases also concur to this effect—MORGAGNI Epistol. Anatomic. 18. No. 4, 5.

It hath happened from convulsive diseases.—VIEUSENS Neurograph. Lib. 3. Cap. 2.—From an epilepsy—Collect. Acad. T. 3. p. 261. HILDAN. Cent. 5. Obs. 5.

VALSALVA cured an amaurosy brought on by a cork forcing his spurs into the ophthalmic nerve, by pressure of the nerve itself, by which means the amaurosy was resolved—as the annulus moderator was relaxed, which compressing the optic nerve, by that constricture, induced blindness.

§. 4.

STRABISMUS.—Strabisme—the afflicted are called Strabones.

STRABISM, OR SQUINTING.

This is a tonic affection, that is, a partial muscular affection of either Eye ; from whence it happens, that the optic axis of one Eye converges not with the other in vision.

The optic axis is a right line, which joins the centers of the vitreous humor, the crystalline lens, and the globe of the Eye together, and which is thought to be extended to the object.

In vision it is required, that the axis of the right Eye should concur in the same point of the object with the axis of the left, from the angle intercepted by these axes we draw our conclusions relative to the size and distance of objects—therefore if the axes diverge, as in those who squint, we shall be able, from our sight, neither to judge of the distance or magnitude of the things we look at.

Hence

Hence then we perceive an object singly, although viewed with both Eyes, because the Eye converging the image of the object falls upon the optic point of each Eye, and we have accustomed ourselves, in these circumstances, to experience that sensation to be excited from one object alone; —but the Eyes, diverging more than usual, the images of the same object fall upon parts of the Eye not corresponding with each other; and since double sensation must be unusual, we perceive it, and bring not two together into one, but to a double object; hence the double sight in those who at first labor under strabism, or squinting; which fault, notwithstanding, by the assistance of the touch, is from custom corrected.

8. *Strabismus vulgaris.* Vûë à la Montmôrancy. L.

COMMON STRABISM, OR SQUINTING.

This happens in one who, from a depraved habit of directing one Eye continually towards one part, the faculty of converging both the optic axes at pleasure hither and

thither is lost.—Thus infants who, lying in cradles, only see the candle, or light of the window from one side, attract the custom of squinting, as also do those who accustom themselves to look at a defect, or spot on the nose.

Infants new born move one Eye by itself from the other in different directions, sometimes one way, sometimes another—as chamaeleontes—animals, like lizards, living on air, turning all colors, except white and red, but successively observe objects to be seen with both Eyes more distinctly and clearly, and thus learn to direct their optic axes together to the same object, which direction then becomes so natural, that it can scarce be altered by the power of the will.

This species may easily be avoided; but when contracted is cured by concave perspicilli of a conoidal form transparent only on the apex;—in France called *Malques à loucheté*, (covers or masques for those who squint) or amongst adults by attention, or reading very small print before a glass.

9. *Strabismus spasmodicus.* L.

SPASMODIC STRABISM.

This is produced by either of the muscles of one or both Eyes being contracted from the attack of clonic eclampsia, or acute convulsive disease, with a deprivation of the senses during the paroxysm---or simple convulsion, sometimes preceding ;——by which that muscle has lost its mobility---then the Eye grows a little rigid, gives resistance to the finger, and is constantly turned either to the right or to the left, downwards or upwards, which is an unfortunate deformity. See *Remedia contracturæ*.

10. *Strabismus a paralyfi.* L.

PARALYTIC STRABISM.

If any one of the recti muscles should be relaxed, or lose their power by paralysis, wound, ulcer, or any other cause, then the antagonist being contracted remains immoveable, as happens to the mouth in hemiplegia——or the whole Eye may be affected with paralysis, and then it remains

fixed and immoveable, and does not converge with the sound Eye.—This strabismus is distinguished from the spasmodic, because the Eye may be easily turned toward the relaxed muscle.—The cure is the same as for palsy.

11. *Strabismus catarrhalis.* B.

CATARRHAL STRABISM.

This depends upon a painful catarrhous congestion, or induration of any other nature on either muscle, so that the pain prevents that muscle from exercising freedom of motion.

This strabismus is easily cured by bleeding, resolvent fomentations, and anodynes; but we should not apply narcotics to the Eye, for from that source there would be reason to be afraid of an amaurosis.

12. *Strabismus symptomaticus*—*Strabismus orantium.* BOERHAAVE. A.

SYMPTOMATIC STRABISM.

This is a turning of the Eye upwards, which happens at the end of some violent disease, as in infants in the hydrocephalo interno, in eclampsia,

eclampsia, fevers, &c. a little before death ; —— it is commonly said that these tender infants are looking back on their own country —— Heaven.

Why the elevator muscle, not the depressor should remain contracted, so that the white of the Eye should only appear, is not yet accounted for.

13. *Strabismus lagophthalmus* —— Vüë de Lièvre. L.

LOGOPHTHALMY, OR HARE-EYED STRABISM.

This is a constant retraction of the palpebra superior, to the superior parts, so that the Eye appears there uncovered even in sleep, as it is said is the custom with hares.

This disease, because of its affinity, is classed with strabismus ; but the causes of it is not by authors sufficiently explained.

14. *Strabismus Myopum* —— Vüë Françoise. L.

MYOPIC STRABISM.

The myopic, or purblind men are those who see objects, almost contiguous only, distinctly ;

distinctly ; but remote ones confusedly ; or in whom the extension of vision is very short, as that of two fingers breadth ; so that when they would see any thing distinctly, they place the object near either of the Eyes, and then, that they may not deprive themselves of any light, they look at the object obliquely with one Eye opposite a window, but the other Eye, inasmuch as it is useless, does not converge.

There are men who squint, who on account of being short-sighted, if they should not be placed so near to the persons with whom they are conversing as to distinguish their face, forbear to look directly at them, and then the Eyes diverge.

15. *Strabismus Aequinoctialis.* BATTEL,
Voyage in Asia.

ÆQUINOCTIAL STRABISM.

A nation called Jaggas, living in the northern parts of Abyssinia ; also Loangoenses, or Albiné, called by the Spaniards, vulgarly, Negrés-blancs, who reside between 28, 40 longitude, and 5, south latitude, in Asia ; are subject

subject to the strabismus ; both are scarce distant five or six degrees from the line of the æquator. The Jaggasses are tall and deformed, they streak their faces with hot irons, they shew only the white of the Eye, hiding the pupil in the day time beneath the palpebra, least it should be hurt by the rays of the sun, which the sandy soil reflects.

The women in order to render themselves pleasing, have the four superior dentes incisores, and two inferior drawn out.

The Loangoenses are born white, but within two days grow black ; the iris of the Eye is grey, their hair yellow, they squint, and are nyctalopes. In the day they see not, but only in the night their sight is very perfect ; from Moxhissi, as their own idols, they think all diseases are transmitted.

SECTION

SECTION THE FIFTEENTH.

THE FAT, CELLULAR MEMBRANE IN THE
INFERIOR PART OF THE ORBIT OF THE
EYE, AND THE ORBIT ITSELF.

§. I.

I. *Exophthalmia a Próuberantiâ.*EXOPHTHALMY FROM INTRA-ORBITAL
PROTUBERANCE.

THIS species varies from many different causes; for the Eye is pushed outwards—by

- a. An intraorbital exostosis.—PETIT Malad. des Os. C. de l'Exostose.
- b. —— abscess—MAITRE-JAN, Part 3. Chap. 1.
- c. —— cyst of blood, ibidem.
- d. —— scirrhus of the lachrymal gland, and also a cancer—BOERHAAVE, Part 1 Cap. 7.—GORTER Chirurg. repurg. Lib. 5. Cap. 10.
- e. —— hydatids—PETIT ibidem, ac sup. f. An

f. An intra-orbital intumescence of adeps,

St. YVES, Par. 1. C. 19, 20.

g. —— lupia—MAITRE-JAN, ibidem.

h. —— gummata *—ASTRUC Traité des Tumeurs, Tom. 2. Liv. 5. Ch. 5. P. 190.

It is not every protuberance arising within the orbit of the Eye, that can produce an exophthalmy; but such only as are sufficiently large, and deep seated.—In the same proportion as the bulk of the protuberance increases, in a similar degree is the bulb of the Eye protruded, scarce altered with respect to the natural size.

The diagnosis of this species, considered in general, is easy, but the distinguishing its varieties infinitely more difficult—but that these may be known one from the other, we recommend the reader to consult the authors above quoted for the sake of brevity—
The cure is to be varied according to the nature of the protuberance from whence the exophthalmy deduces its origin. This will

* Hard, indolent tubercles, adhering to the periosteum in the lues venerea.

be recited by PETIT, MAITRE-JAN, BOER-HAAVE, and ASTRUC, in thote places appropriated to each variety.—Examine moreover the genera of exostosis, apostema, hydatids, lupia, scirrhus and cancer.

T H E E N D.

I N D E X.

Note. Those words printed in Small Capitals are the names of those diseases from whence arise many species—those in the Common Letter such as are enumerated by SAUVAGES, or translated,—and those in Italics, such as are mentioned by various other authors, or so denominated in different countries—and words by which it has been thought necessary to point out the derivations.

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 Dialysis, *dialuo*, dissolvo, to dissolve, or separate,
 Diaphoresis, *diaphoro* in diversas partes fero, to carry through different parts,
 Diapomphologos, *dia pompholux* villa æris, embers, or calx of verdigrise,
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——— *ex certamine atb-*
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Ectropium, *ek*, ex, and *trepo*, verto,
to turn, 7.

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Emphysema, *emphusao*, inflø, to puff
up,

Empyesis, *en*, in, and *puon*, pus,
matter,

Encahnthis, *en*, in, *kanthos*, Angulus,
Angle,

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las, propre, near.

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10	4 for Hair-Eye,	read Hare-Eye.
36	5 — Flux acrid,	— Flux of aerid
37	20 — carcinomatous,	— carcinomatous
42	21 — emollient,	— emollient
45	15 — Tébaic,	— Thebaic
58	4 — Curuncle,	— caruncle,
68	18 — or sorrow, or	— or it is the effect of sorrow, commis- eration, &c.
84	3 — Melempodii,	— Melampodii;
96	18 — Infraction,	— Infarction;
105	13 — suceeds,	— suceed
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125	14 dele of Ophthalmia.	
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126	7 — and Tutty, the dose,	— and Tutty ; the dose
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210	17 — crooked feissars,	— crooked feissars
230	2 — quo,	— duo
—	19 — come on,	— comes on
239	1 — destinguished,	— distinguished
—	— dilirium,	— delirium,
—	15 — depravaties,	— depravities
—	17 — lightning,	— lightning,
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267	22 — authors among,	— authors ; among
282	4 — Perspicilla,	— perspicilli
285	— SECTION the 11th	{ read SECTION the 10th, and alter the Sections to the end.
305	12 — Diplopia,	read Diplopia
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A
E S C R I P T I O N
O F T H E
H U M A N E Y E,
A N D I T S
A D J A C E N T P A R T S;
T O G E T H E R W I T H T H E I R
P R I N C I P A L D I S E A S E S,
A N D T H E
M E T H O D S proposed for relieving them.

By JOSEPH WARNER, F.R.S.

And Senior Surgeon to Guy's Hospital.



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